DESIGN OF INNOVATION

Annual Report 2018

Besi

DESIGN OF INNOVATION

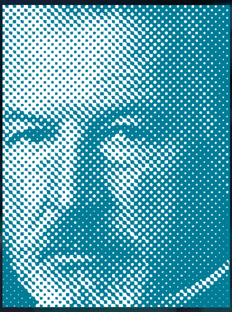
- Besi has a long tradition of innovation in the development of advanced die bonding, packaging and plating systems for the assembly equipment market
- We work closely with customers to produce systems with industry leading levels of accuracy, throughput and reliability
- Our products are used for leading edge applications such as 3D imaging, facial recognition, automotive electronics, cloud servers and high performance computing
- We are currently investing in new assembly technologies such as FOWLP, TCB, TSV, ultra thin dies and large area and wafer level molding as well as solar and 3D-lithium-ion battery plating for the mobile and cloud revolutions and the new digital society

INVESTMENT CONSIDERATIONS

Assembly ever more critical step in semi value chain	Best in class advanced packaging portfolio	Advanced packaging growth driven by next gen applications
Scalable production and supply chain aids profitability	Disciplined strategic execution. Peer leading financial returns	Attractive capital allocation policy

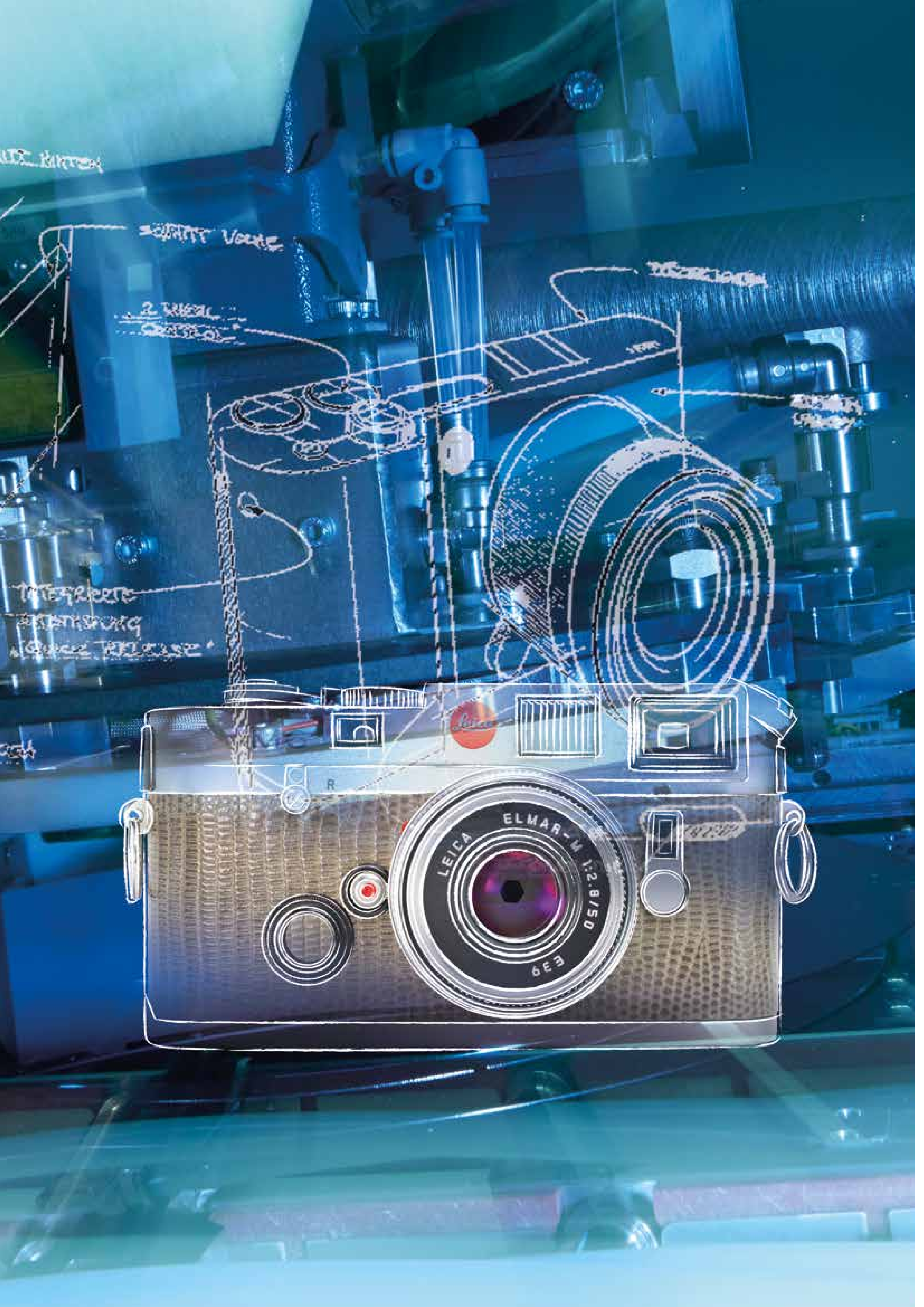
FINANCIAL HIGHLIGHTS

	2018	2017
Revenue	€ 525.3 MM	€ 592.8 MM
Gross Margin	56.8%	57.1%
Net Income	€ 136.3 MM	€ 173.2 MM
Net Margin	25.9%	29.2%
Return on Avg Equity	33.8%	44.4%



Ernst Leitz (1843 – 1920)

Leica Camera AG is a company that manufactures cameras and lenses. The company was founded by Ernst Leitz in 1914. The name Leica is derived from the first three letters of his surname (Leitz) and the first two letters of the word camera: lei-ca.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Report of the Board of Management

From processed wafer to assembled chip

Semiconductor Manufacturing Equipment (2018: $ 65.9B)*		
Front end: $ 55.3B (84%)	**Assembly:** $ 4.6B (7%)	Test: $ 6.1B (9%)

* Source: VLSI January 2019

Semiconductor Assembly Process

Dicing	Die Attach	Wire Bond	Packaging	Plating	
	Die Bond		Molding, Trim & Form and Singulation	Plating	
	Besi		Besi	Besi	Leadframe Assembly
	Besi		Besi		Substrate Wire Bond Assembly
	Besi		Besi		Substrate Flip Chip Assembly/TCB
	Besi		Besi		Wafer Level Packaging Flip Chip Assembly/Fan Out

Company Profile

BE Semiconductor Industries N.V. ("Besi" or the "Company") is engaged in one line of business, the development, manufacturing, marketing, sales and service of semiconductor assembly equipment for the global semiconductor and electronics industries.

Our market

The semiconductor manufacturing process involves two distinct phases, wafer processing, commonly referred to as the front-end, and assembly/test operations which are commonly referred to as the back-end. Our equipment is used by customers principally to produce advanced semiconductor assemblies or "packages". Typically, such assemblies provide the electronic interface and physical connection between a semiconductor device, or "chip", and other electronic components and protect the chip from the external environment. VLSI Research, a leading independent industry analyst, estimated that the size of the assembly equipment market was approximately $ 4.6 billion in 2018, or 7.0% of the total semiconductor equipment market. Annual growth rates in the semiconductor assembly equipment market can fluctuate greatly based on global economic cycles and the capital investment programs of our semiconductor and industrial customers.

Semiconductor assembly shares certain common processes but involves three distinct technologies currently depending on the product application required:

Leadframe assembly, the most traditional approach, involves the electrical connection of the chip via a wire bonding process to a metal leadframe. Leadframe assembly technology is most frequently used to produce semiconductor devices for mass market and consumer electronics applications.

Substrate assembly, an alternative assembly process, has gained increased market acceptance and is used most frequently in new product applications that require high degrees of miniaturization and chip density such as smart phones, tablets and portable personal computers as well as wireless, automotive and cloud based internet applications. In a typical substrate assembly, no metal leadframes are utilized and the electrical connection of the chip is made directly to a multi-layer substrate or through the creation of direct connections to the multi-layer substrate via a flip chip die bonding process.

Wafer level packaging, the most advanced assembly technology, eliminates the use of either a metal leadframe or laminated substrate for semiconductor assembly. In wafer level packaging, the electrical connections are directly applied to the chip without the need for an interposer. This process technology enables customers to achieve even higher degrees of miniaturization, chip density and performance and lower energy consumption than substrate assembly but at a higher cost and reduced yield currently. We anticipate that wafer level packaging will be more actively utilized for next generation applications such as big data, artificial intelligence and the digital society.

Besi is a leading provider of advanced packaging solutions to customers which incorporate both substrate and wafer level based packaging processes in their assembly operations. We define advanced packaging as the assembly of semiconductor devices with geometries below 28 nanometers and placement accuracy below 10 microns in 24/7 production environments. We estimate that approximately 75% of Besi's system revenue in 2018 was for advanced packaging applications of which 55% were for the most leading edge devices with geometries below 17 nanometers and placement accuracy below 7 microns.

Our market opportunities

The markets which we serve offer significant long-term opportunities for growth particularly in the most advanced packaging applications. Besi is well positioned to capitalize on end-user market opportunities, the most prominent of which include: (i) mobile internet devices (smart phones, wearable internet devices, other wireless devices and logistical systems), (ii) intelligent automotive components and sensors, (iii) computing (tablets, servers, PCs, flat panel displays, internet applications), (iv) data mining, (v) cloud computing and peripherals, (vi) the Internet of Everything including the smart management of residential, industrial and municipal equipment and functions, (vii) artificial intelligence, (viii) virtual and augmented reality, (ix) advanced medical equipment and devices, (x) solar, battery and renewable energy applications and (xi) LED devices.

Our products and services

Besi develops and supplies leading edge systems offering high levels of accuracy, reliability and productivity at a low cost of ownership. We offer customers a broad portfolio of systems which address substantially all the assembly process steps involved in leadframe, substrate and wafer level packaging. Our principal product and service offerings include:

- **Die attach equipment:** single chip, multi chip, multi module, flip chip, TCB and eWLB die bonding systems and die sorting systems.
- **Packaging equipment:** conventional, ultra thin and wafer level molding, trim and form and singulation systems.
- **Plating equipment:** tin, copper and precious metal plating systems and related process chemicals.
- **Services/Other:** tooling, conversion kits, spare parts and other services for our installed base of customers.

Our customers

Our customers are primarily leading multinational chip manufacturers, assembly subcontractors and electronics and industrial companies and include ASE, Amkor, Bosch, Foxconn (Hon Hai Precision Industries), Infineon, JCET/STATS ChipPAC, NXP Semiconductors, SPIL (Siliconware Precision Industries), STMicroelectronics and TFME. Customers are either independent device manufacturers ("IDMs") which purchase our equipment for internal use at their assembly facilities or assembly subcontractors which purchase our equipment to produce packages for third parties on a contract basis. Our equipment performs critical functions in our customers' assembly operations and in many cases represents a significant percentage of their installed base of assembly equipment.

Our global presence
We are a global company with headquarters in Duiven, the Netherlands. We operate seven facilities in Asia and Europe for production and development activities as well as eight sales and service offices across Europe, Asia and North America. We employed a total staff of 1,759 fixed and temporary personnel at December 31, 2018, of whom approximately 70% were based in Asia and 30% were based in Europe and North America.

Our listings
Besi was incorporated under the laws of the Netherlands in May 1995 and had an initial public offering in December 1995. Besi's ordinary shares are listed on Euronext Amsterdam (symbol: BESI) and are included in the Amsterdam Midcap Index ("AMX index"). Our level 1 ADRs trade on the OTC markets (symbol: BESIY Nasdaq International Designation). We also have two issues of Senior Unsecured Convertible Notes outstanding which are listed on the Deutsche Börse's Freiverkehr market. (See "Shareholder Information" on page 55).

More detailed information about Besi can be found at our website: **www.besi.com**.

Key Highlights 2018

Solid performance
- Revenue of € 525.3 million. Down 11.4% versus 2017 as industry conditions softened
- Gross margin of 56.8% versus 57.1% as production overhead aligned with new market environment
- Net income of € 136.3 million versus € 173.2 million
- Net margin of 25.9% versus 29.2%
- Return on average equity of 33.8% versus 44.4%

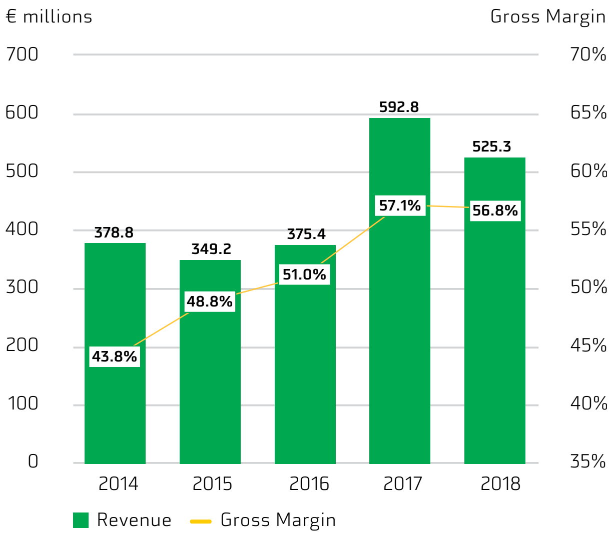
Peer leading operating efficiency
- Gross and net margins and return on equity highest amongst assembly equipment peers
- Timely management response to challenging 2018 conditions kept quarterly gross margins consistently above 56%
- Flexible headcount and supply chain model aids profitability in volatile market environment

Strong cash flow generation supports shareholder friendly capital allocation program
- Cash flow from operations of € 184.1 million (up 9.5% versus 2017) represented 35.0% of revenue in 2018
- Cash and deposits of € 475.5 million (€ 5.68 per diluted share) provide solid basis for future growth
- Net cash of € 199.4 million at year end despite 2018 dividend payments and share repurchases totaling € 209.5 million
- € 35.5 million utilized for share repurchases versus € 23.5 million last year
- Proposed 2018 dividend of € 1.67 per share. Pay-out ratio of approximately 91%

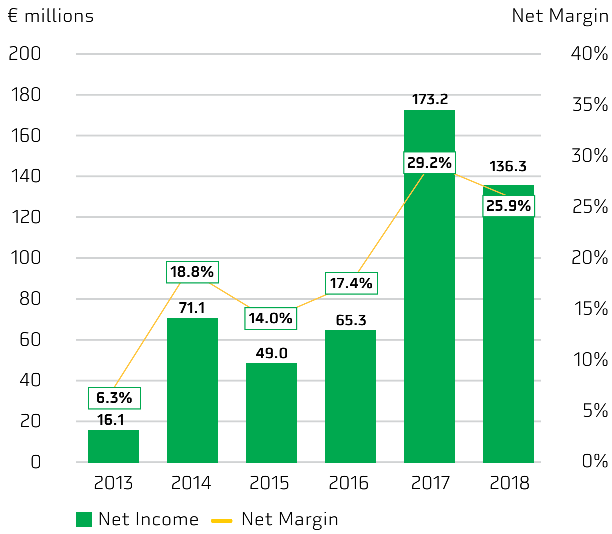
Strategic plan execution continues to enhance revenue potential and reduce structural costs
- Structural cost reduction continues via 7.8% reduction in European fixed headcount in 2018, West-East personnel transfer and increased usage of common parts in next generation systems
- Singapore sales, service and development center expansion completed to better serve growing Asian installed base
- Chinese expansion completed facilitating sale of full product portfolio in local market and approximately 40% aggregate Besi capacity increase

Strategically well positioned for next industry upcycle
- Advanced packaging is a critical part of the semiconductor value chain for emerging digital applications such as artificial intelligence, 5G network compatibility, cloud computing, data mining, autonomous driving and the Internet of Everything
- Current development efforts focused primarily on advanced features for next generation mobile internet and computing applications
- Leading position in advanced packaging combined with scalable, flexible Asian production model offers potential revenue and market share gains in next industry upcycle

REVENUE AND GROSS MARGIN TRENDS



NET INCOME TRENDS

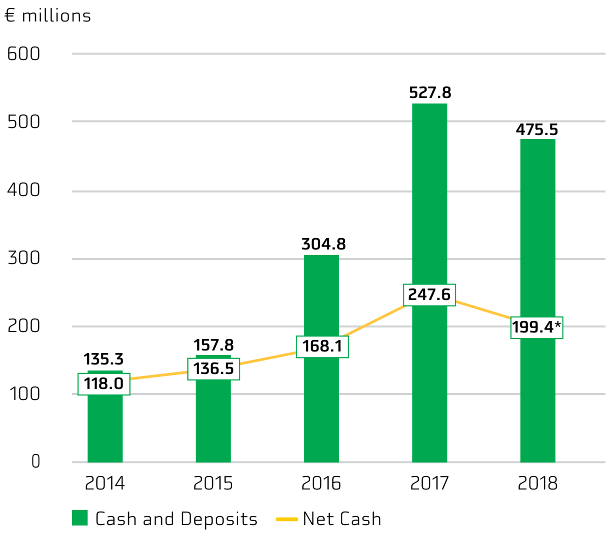


Key Financial Highlights

Year ended December 31,	2018	2017	2016	2015	2014
Operating data (in euro millions, except share and per share data[1])					
Revenue	**525.3**	592.8	375.4	349.2	378.8
Orders	**483.1**	680.9	373.8	348.3	407.6
Operating income	**172.7**	209.4	75.2	57.9	72.1
EBITDA	**187.7**	222.8	89.8	73.0	82.1
Net income	**136.3**	173.2	65.3	49.0	71.1
Net income per share[1]					
Basic	**1.83**	2.32	0.87	0.65	0.95
Diluted	**1.68**	2.17	0.85	0.64	0.94
Dividend per share[1, 2]	**1.67**	2.32	0.87	0.60	0.75
Shares outstanding (000s)[1, 3]	**73,570**	74,551	74,653	75,727	75,425
Balance sheet data					
Cash, cash equivalents and deposits	**475.5**	527.8	304.8	157.8	135.3
Total debt	**276.1**	280.2	136.7	21.4	17.4
Net cash	**199.4**	247.6	168.1	136.5	118.0
Total equity	**372.2**	434.1	345.0	332.2	328.8
Financial ratios					
Gross profit as % of revenue	**56.8**	57.1	51.0	48.8	43.8
Operating income as % of revenue	**32.9**	35.3	20.0	16.6	19.0
Net income as % of revenue	**25.9**	29.2	17.4	14.0	18.8
Return on average equity (%)	**33.8**	44.4	19.3	14.8	24.0
Return on invested capital (%)	**22.3**	30.4	16.0	14.2	20.5
Current ratio	**6.0**	5.2	4.7	4.4	3.4
Solvency ratio	**48.2**	49.6	58.7	76.8	74.0
Headcount data					
Headcount fixed	**1,692**	1,724	1,586	1,499	1,510
Headcount temporary	**67**	316	83	40	122
Total headcount	**1,759**	2,040	1,669	1,539	1,632
Geographic data					
Revenue from Asia as % of total revenue	**66.4**	70.4	78.2	66.4	67.4
Headcount in Asia as % of total headcount	**70.3**	71.1	66.8	61.7	59.4
Selected non-financial and CSR data					
Relative energy use (GWh/revenue)	**0.030**	0.030	0.039	0.047	n/a
Relative waste (kg/revenue)	**312**	310	496	444	n/a
Water usage efficiency (m^3/revenue)	**52**	55	70	83	n/a

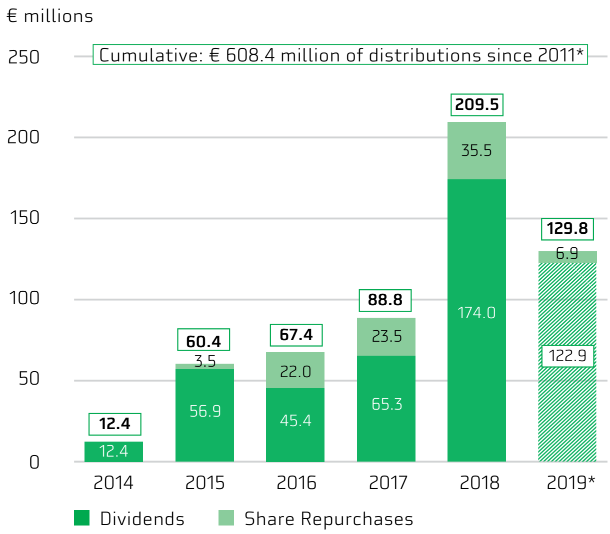
[1] All share and per share amounts have been adjusted for the two for one stock split effected on May 4, 2018.
[2] Proposed 2018 dividend for approval at Besi's AGM to be held on April 26, 2019. Includes a special dividend of € 0.18 per share in 2016 and € 0.10 per share in 2015.
[3] Net of shares held in treasury.

LIQUIDITY TRENDS



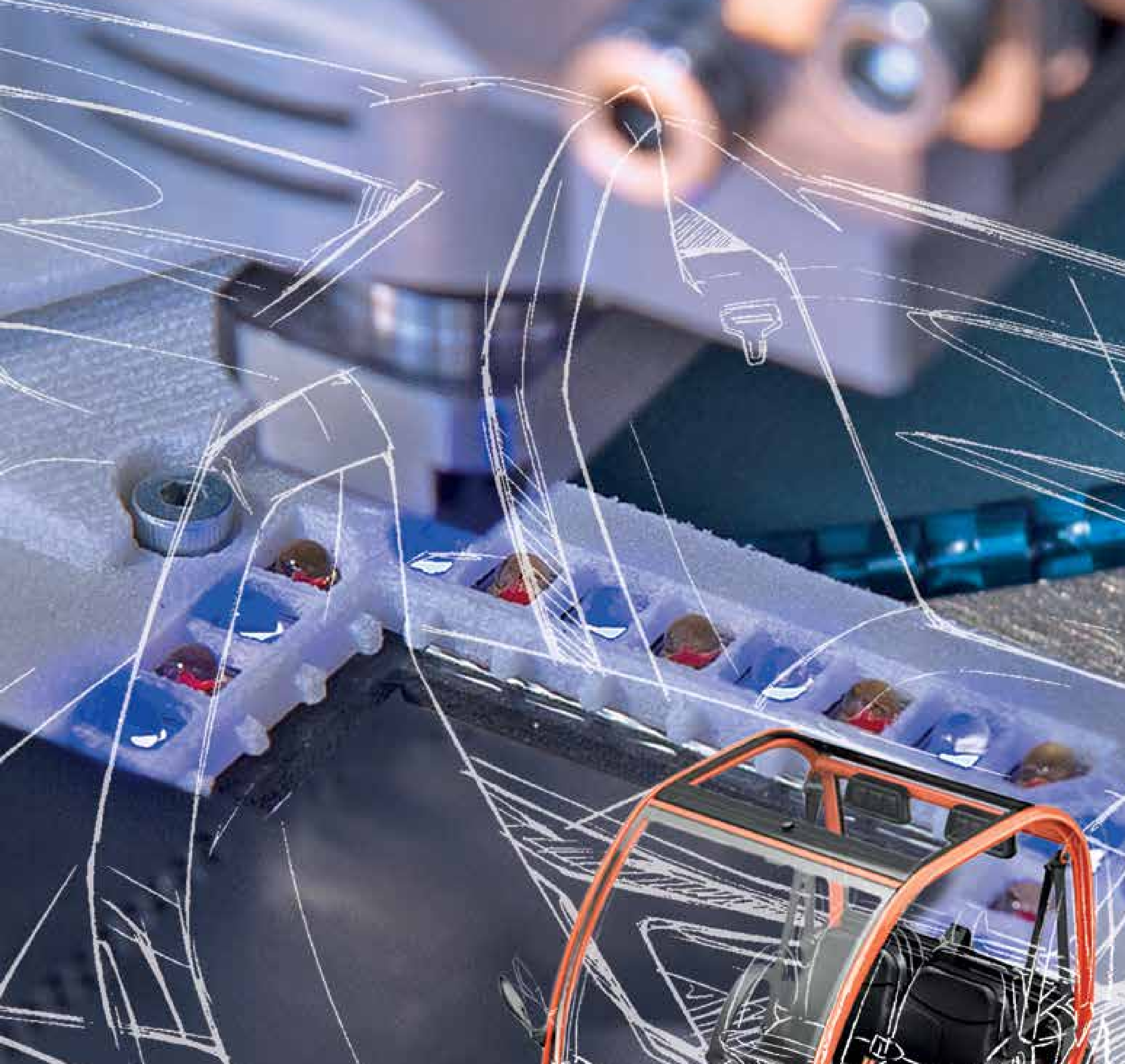
* Includes € 300.0 million of Convertible Notes with a carrying value of € 271.8 million.

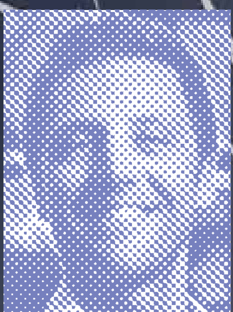
CAPITAL ALLOCATION TRENDS



* Assumes proposed dividend payment of € 1.67 per share for approval at 2019 AGM and share repurchases through February 18, 2019.

Letter to Shareholders





Matteo Maestri

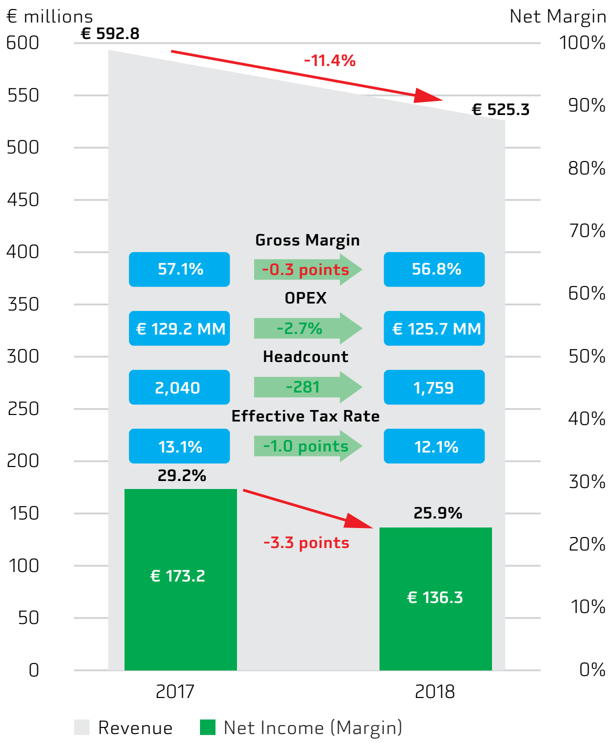
Matteo Maestri, the young founder of Estrima, who had a moment of inspiration, and is now turning that inspiration into an innovative reality. Mateo designed the Birò, the first 4-wheel personal commuter, 100% electric with removable battery. It is also the first vehicle in its category to be designed with two seats side by side.

Letter to Shareholders

Dear Shareholders,

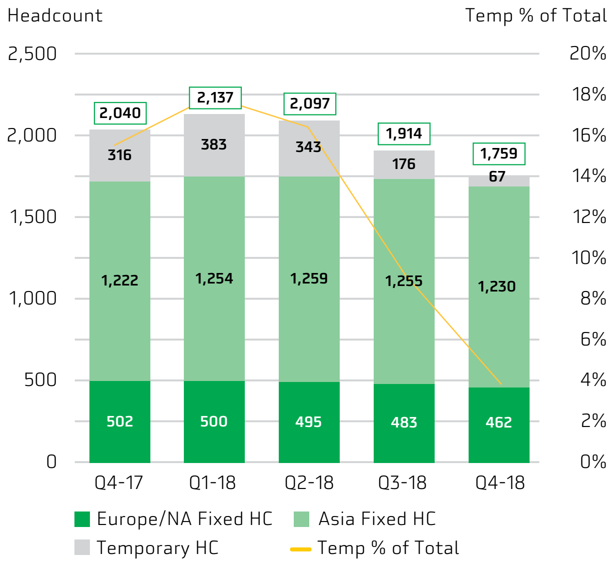
Besi's 2018 results reflected solid performance and strategic execution in an assembly equipment market significantly more challenging than 2017. Revenue of € 525.3 million and net income of € 136.3 million declined by 11.4% and 21.3%, respectively, versus 2017. Our 2018 revenue development was primarily affected by a second quarter slow-down in high end mobile demand followed by broad weakness in memory and other end-user markets starting in the third quarter of the year. Revenue development was also adversely affected by forex headwinds from a 4.5% average decrease in the value of the dollar versus the euro. In retrospect, it appears that Besi's second quarter order weakness was an early indication of an industry downturn post an extended upward trajectory which began in the second half of 2016.

SOLID 2018 PERFORMANCE DESPITE CHALLENGING MARKET



In the current downturn, management rapidly aligned production, supply chain and personnel in response to adverse market conditions. As a result, Besi was able to maintain peer leading metrics of profitability such as gross and net margins (56.8% and 25.9%) and return on equity (33.8%). In fact, gross margins exceeded 56% in each quarter of 2018 despite a revenue decline of 42.6% between the second and fourth quarters of the year. Further, we successfully reduced costs in the face of decreased customer demand due to the ongoing execution of strategic initiatives, continued reductions of European fixed overhead and the realignment of temporary Asian production personnel to a changing market environment.

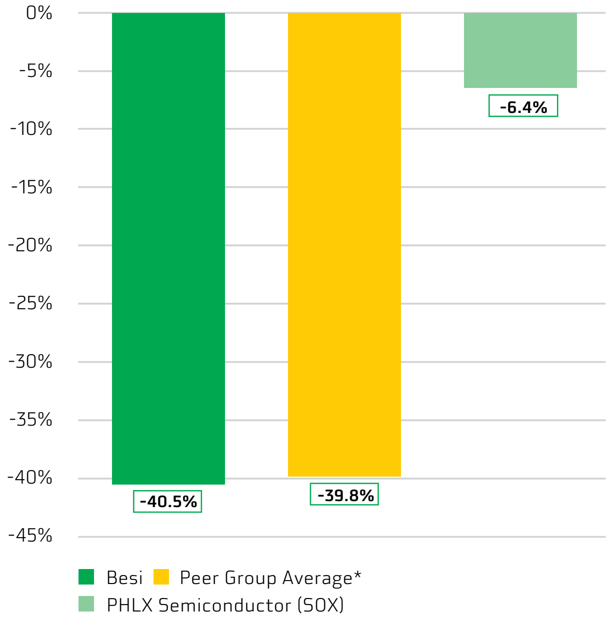
ALIGNING OVERHEAD TO INDUSTRY CONDITIONS



Putting it in perspective, our results over the past two years demonstrate the improved scalability and profitability of our business model both in strong industry upcycles such as 2017 as well as in the sharp industry downdraft experienced in the second half of 2018. Periodic revenue volatility is nothing new to our industry. In fact, we view downturns as an opportunity for improvement. Periods of less robust growth let us further hone our strategy, development efforts, organizational structure and financial potential to capitalize on the next major industry upturn. We have emerged from each of the past four downcycles a stronger company with increased revenue, market share and profit potential. Besi also has a solid liquidity base consisting of cash, cash equivalents and deposits aggregating € 475.5 million at year end (€ 5.68 per diluted share versus a year end stock price of € 18.48 per share) which puts us in a good position to take advantage of future opportunities regardless of the industry environment.

In addition, our capital allocation policy continued to reward shareholders for their investment in Besi this year despite a challenging stock market for our shares and those of the semiconductor industry more generally. In 2018, € 209.5 million was returned to shareholders in the form of dividends and share repurchases. Since 2011, total dividends and share repurchases have aggregated € 483.6 million (or € 6.57 per share). In contrast, Besi's total stock price return decreased by 40.5% in 2018 versus a 39.8% decrease amongst our most comparable peers and a 6.4% decrease for the benchmark Philadelphia Semiconductor ("SOX") index. However, over the past five years, Besi's stock has produced a cumulative total return of 492.2%, significantly outpacing returns of both our peers and the SOX index.

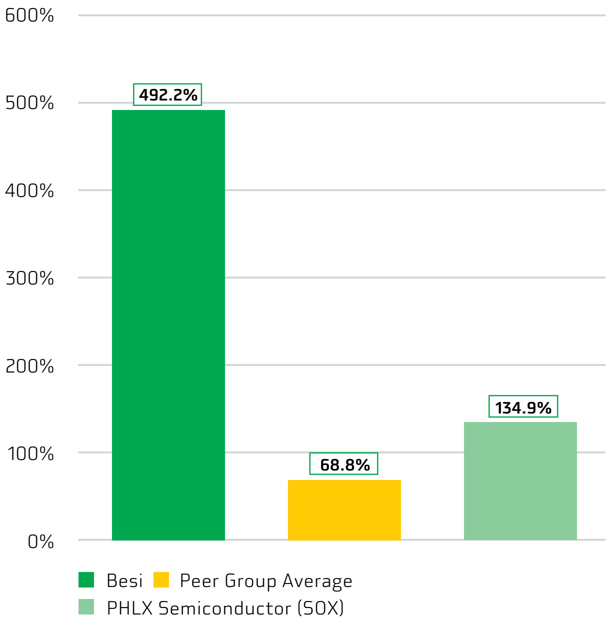
2018 TOTAL SHAREHOLDER RETURN
BESI VS. PEER GROUP & SOX INDEX



* Peer group average consists of Kulicke & Soffa, ASM PT, Disco Corp, Towa, Tokyo Seimitsu.

Source: Bloomberg

TOTAL CUMULATIVE SHAREHOLDER RETURN
BESI VS. SOX INDEX 2014-2018



- Besi returns calculated in euro
- Philadelphia SOX returns calculated in US dollar

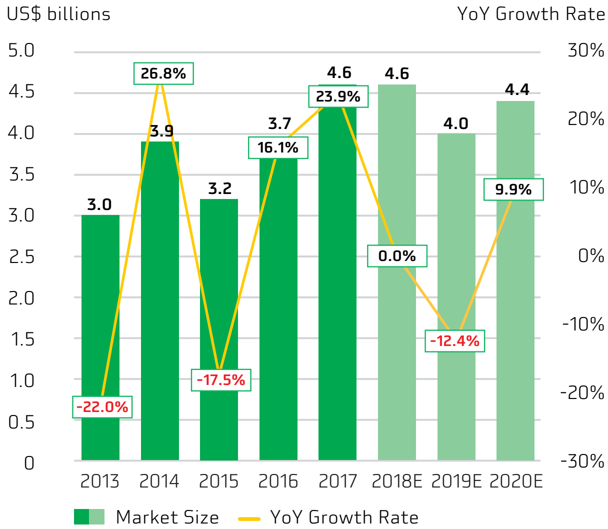
Given the solid cash flow generation of our business model and future prospects, we initiated a new € 75 million share repurchase program in July 2018 which increased quarterly share repurchases from approximately € 6 million to € 12 million per quarter. Moreover, share repurchase activities since 2011 have enabled us to accumulate approximately 6.5 million shares in treasury by year end 2018 at an average cost per share of € 13.75. Such activities have lessened the dilutive impact of Convertible Notes issued in 2016 and 2017 and employee share grants. Further, given profits earned in 2018 and Besi's solid financial position, we propose to pay a cash dividend of € 1.67 per share for approval at Besi's AGM on April 26, 2019. The proposed distribution is the eighth consecutive annual dividend paid and reflects a pay-out ratio relative to net income of 91%.

Business review

Semiconductor assembly equipment market relatively flat between 2017 and 2018. Second half 2018 industry downturn expected to continue in 2019

VLSI Research currently estimates that the semiconductor assembly equipment market was approximately $ 4.6 billion in 2018, approximately flat with 2017 levels. Their current 2018 estimate reflects a more negative outcome than the 18% increase initially forecast at the start of the year.

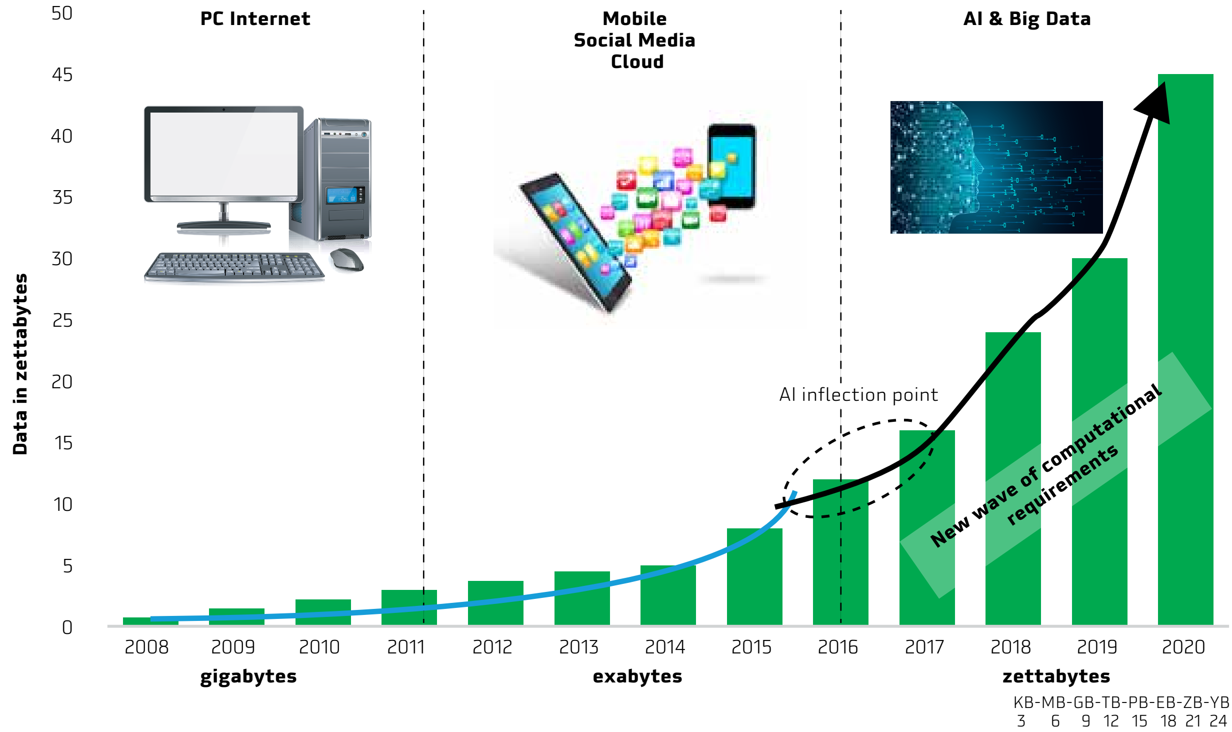
ASSEMBLY EQUIPMENT MARKET TRENDS



Source: VLSI January 2019

VLSI estimates that the current assembly equipment industry downtrend which started in the middle part of 2018 will continue into 2019 with a projected market decline of approximately 12%. The downturn has been fuelled by (i) slowing economic growth globally, particularly in China and the US, (ii) more cautious customer order patterns given heightened global uncertainty surrounding trade and technology supply chains, (iii) excess memory and smart phone capacity given the large build out in 2016 and 2017 and (iv) the absence of significant orders for high performance computing and crypto currency mining. According to VLSI, the 2018-2019 downturn will be followed by renewed growth in 2020 as capacity utilization rates increase and new products are introduced.

NEW ERA OF CHIP GROWTH AND APPLICATIONS WILL DRIVE GREATER COMPUTING AND DATA NEEDS



Source: IMEC ITF 2018/Besi

Strategically well positioned for next generation of electronics applications

New semiconductor devices are being created and deployed to assist in the development of a new era of electronics applications for the digital society. In such a society, intelligence and electronic content in all facets of our life will increase such as smart mobility, homes, factories, municipalities and transportation to name just a few. In addition, productivity enhancing technologies such as cloud computing, 5G networks, artificial intelligence, data mining, autonomous driving and blockchain software for industrial and e-commerce applications will become more prevalent. New leading edge semiconductor devices will play a critical role in developing many such applications.

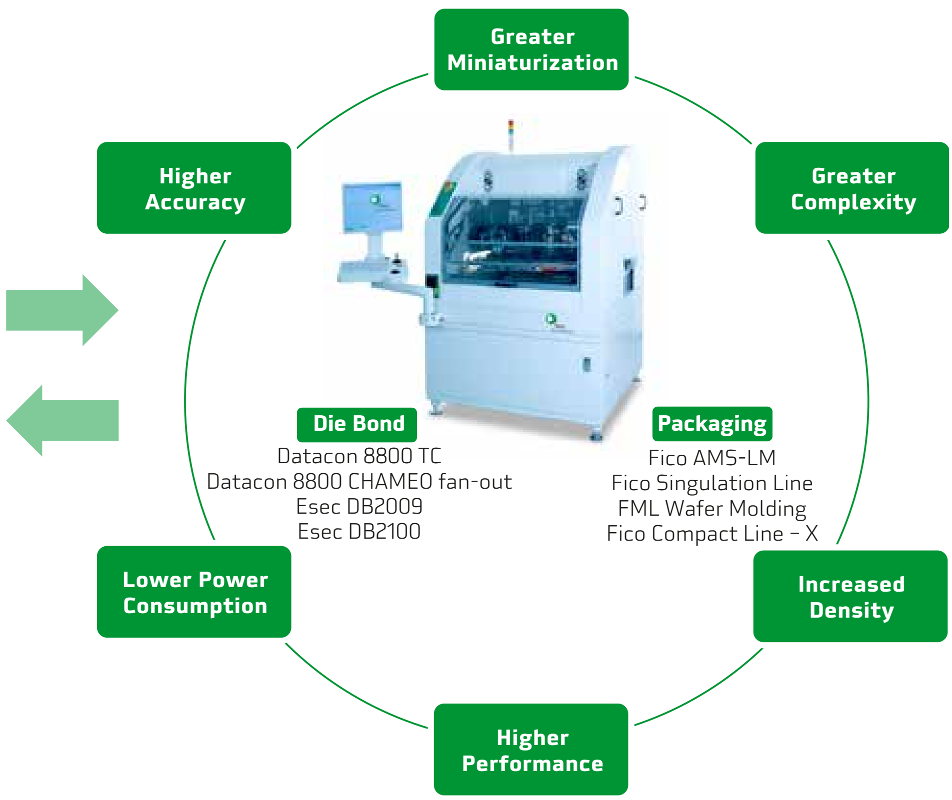
ADVANCED PACKAGING CRITICAL TO NEXT GENERATION APPLICATIONS

Mobile Revolution

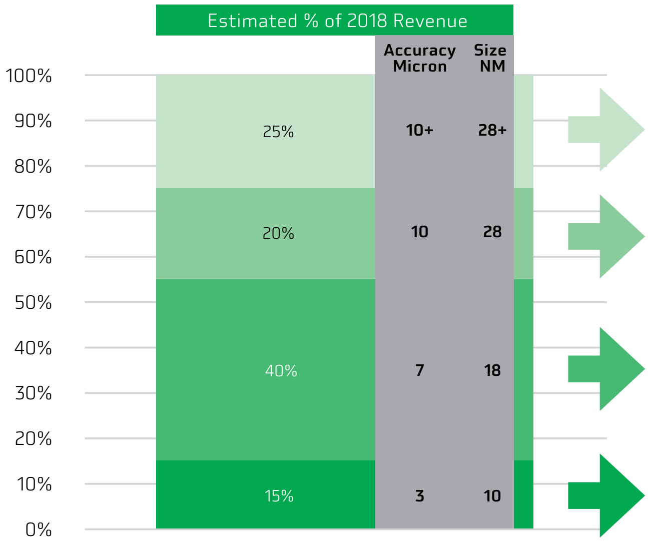
- Mobile internet
- Messaging
- Social media
- Shared economy
- Gaming
- Geo-location
- Audio/video
- Auto electronics

Digital Society

- Smart manufacturing, cities, mobility and homes
- Autonomous driving
- Data mining
- Cloud infrastructure
- IoT
- Wearable devices
- Artificial intelligence
- VR/AR
- MEMS



BESI PORTFOLIO WELL POSITIONED BY NODE SIZE AND ACCURACY



Typical Application	Besi Equipment
Automotive, SiP Power	Die Attach Packaging Plating
IoT General ICs	Die Attach Packaging Plating
Computer, PC, Mobile Cloud Computing	Die Attach Packaging
High Performance Computing Memory	Die Attach Packaging

- 75% of Besi equipment revenue advanced packaging as per VLSI definition

As a result, we believe that a new technology cycle is underway wherein customers increasingly demand more complex advanced packaging solutions containing ever more functionality in ever smaller form factors. Advanced packaging has thus become a critical part of the semiconductor value chain to realize next generation electronics applications. The increasing proportion of Besi's revenue represented by independent device manufacturers ("IDMs") over the past two years appears to confirm this trend as they are the mind share leaders driving chip development. We are well positioned in the advanced packaging space with an estimated 75% of our systems following the VLSI Research definition, of which approximately 55% were in the most leading edge applications (<7 micron accuracy and <17 nanometer form factor).

Successful strategic plan execution has potential to enhance revenue and profit potential in next industry upcycle

Keys to long-term success in the assembly equipment industry include technological leadership, alignment with the right customers, producing highly reliable and accurate systems for 24/7 production environments and possessing the flexibility and scalability to meet volatile swings in demand for a market whose cycle times have become ever shorter. Besi's business strategy has been developed with these considerations in mind.

WHAT DRIVES BESI'S BUSINESS?

- **Macro GDP trends**
- **Tech capabilities in 24/7 production environment**
- **IDM customer alignment (pick the winners)**
- **Timing of capital spending programs by customers**
- **Competitive cycle times and scalability**

Our first priority is to maintain technological leadership in the advanced packaging segment of the industry. This is the most rapidly growing part of the business with the greatest potential for future growth. We then leverage this leadership position to generate ever higher levels of through cycle revenue, profitability and cash flow via our highly scalable and flexible Asian production model and supply chain network. Weekly analyses of our order development and supply chain combined with disciplined cost control efforts have enabled us to respond rapidly to changing market conditions, retain peer leading margins and generate high levels of cash flow to support a shareholder friendly capital allocation policy.

Revenue initiatives

Our current strategic plan includes initiatives to increase Besi's market presence, revenue growth and market share in the 2017-2021 period. Revenue initiatives focus primarily on our largest end-user application markets: mobile internet, computing and automotive. We estimate that these three areas represented approximately 35%, 17% and 21%, respectively, of our revenue in 2018.

In our largest market, mobile internet devices, Besi is presently engaged with customers on assembly solutions for next generation device capabilities such as front-back facing cameras, multiple camera modules (8+) and enhanced 3D sensing and facial recognition features. In general, producers are looking to increase the complexity, functionality, energy efficiency and placement accuracy of mobile devices in next generation introductions, all at lower production cost and form factor than prior generations. In addition, we look to leverage our technology position to expand opportunities in the Android market over the next five years.

In addition, a significant customer focus for the next investment round is the development of die bonding and packaging solutions for smaller, highly complex and feature packed 5G compatible smart phones. 5G is a unifying connectivity platform for future innovation enabling secure cloud access on a continuous basis at significantly higher data and video transmission speeds. User adoption of 5G capabilities should greatly expand mobile broadband activities and accelerate the usage of artificial intelligence for the Internet of Everything. In turn, such advancements will lead to greater functionality, efficiency and safety of mission critical applications such as traffic safety, industrial automation and medical systems, to name just a few. Industry experts estimate that initial 5G subscriptions will be available by 2020 and that by 2024, 55% of North American and 43% of Northeast Asian (including Japan and China) subscriptions will have migrated to 5G networks. The deployment of this enabling technology could significantly accelerate advanced packaging adoption over the next decade.

Another revenue initiative is to expand our reach in the logic and memory markets in the era of cloud computing, data mining and artificial intelligence. One objective is to increase the market share of Besi's flip chip and 3D stacked die bonding solutions versus traditional wire bonding processes due to the increased complexity, accuracy and miniaturization required for next generation applications. In the automotive sector, Besi seeks to increase its share of existing European and North American customers due to the higher electronic content, performance and safety standards required for such markets. We also intend to expand our share of Japanese automotive supply chains.

Another strategic focus is the expansion of Besi's spares and service revenue. Such revenue has grown by approximately 115% over the past five years due to the rapid growth of our installed base, particularly in Asia. In 2018, it represented approximately 15% of consolidated revenue. In response, we have significantly increased staffing at our Singapore facility to centralize all spares activities globally at one location and to utilize an interactive online customer portal to accelerate response times and increase profitability.

Operating initiatives

Besi's strategic operating initiatives seek to achieve a more scalable and lower cost manufacturing model and to cut annual structural costs by approximately € 15-20 million by 2021. Primary areas of focus include (i) supply chain optimization through the consolidation of vendors and incremental purchasing efficiencies, (ii) headcount and overhead reductions via a continued West-East transfer of personnel from Europe to Asia and (iii) labor, design and productivity efficiencies primarily related to the implementation of common components and modules in each next generation system design.

In 2018, Besi successfully achieved the following operating objectives:

- A 7.8% reduction of European based fixed personnel.
- An 80% reduction of temporary personnel between the second and fourth quarters of 2018 to better align production with market conditions.
- Completion of the build out and staffing of Besi's Singapore sales, service and development center and Asia Pacific region sales and service capabilities to better serve a growing Asian installed base of customers.

ADOPTION OF 5G WILL EXPAND APPLICATIONS AND FEATURES WITH INCREASED PERFORMANCE

Source: Qualcomm May 2017 ITF Conference/Besi

Visit Supervisory Board to Besi APac

- Completion of our Chinese production expansion to increase Besi's aggregate production capacity by approximately 40%.
- Expansion of Besi's product portfolio to encompass a full range of die attach and packaging systems for the local Chinese market.

Corporate Social Responsibility ("CSR") activities

We have developed a CSR policy in recent years which seeks to promote Besi's business and financial interests in a socially responsible manner for the benefit of all stakeholders, partners, the environment and the local communities in which we operate. Besi is committed to running its operations in accordance with internationally recognized standards and best practices and to promote sustainability with all stakeholders including topics such as environmental conservation, human rights, conflict mineral free supply chains, anti-corruption practices and corporate transparency.

We made good progress on our CSR agenda in 2018. Highlights included:

- Increased compliance by our supply chain with the Responsible Business Alliance ("RBA") Code of Conduct and the Conflict Mineral Reporting Template ("CMRT").
- An improvement of CSR KPI metrics in the areas of supplier audits, EICC self-assessments and signatories to Besi's General Work Agreement.
- A lower environmental impact via reduced relative waste and energy usage and increased water efficiency in our operations.

For 2019, Besi's major CSR priorities include (i) the implementation of recommendations resulting from our ongoing risk assessment project with a particular focus on enhancements to our fraud and anti-bribery and corruption policies, particularly in Asia, (ii) further increasing compliance by our supply chain with the RBA Code of Conduct and CMRT, (iii) continuous development of initiatives in response to the employee engagement survey and (iv) improving internal reporting and monitoring of KPI compliance and target achievement on a quarterly basis.

Outlook

Challenging industry conditions have continued from the second half of 2018 until now. Based on our experience, downturns typically last approximately four quarters until capacity added in the prior upturn is digested and utilization rates begin to rise once again. However, there are macroeconomic and geopolitical factors which could influence the outlook and timing of customer demand in 2019 such as slowing global growth and trade frictions between the US and China. Thus, it is difficult to predict the course of the assembly equipment market this year and when a renewed upturn will begin. Given our strategic product positioning, initiatives to further improve profitability and cash flow generation, scalability and ample liquidity, Besi is well positioned to take advantage of industry opportunities no matter which way the market moves in the quarters to come.

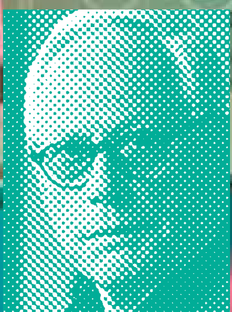
Longer term, there are many reasons to be optimistic about Besi's prospects. We have a leading position in the advanced packaging space whose outlook is bright as an important enabler of the digital society and the new applications which will be generated along with it. Near term, the advent of 5G capabilities, artificial intelligence and the ever increasing amounts of advanced logic and memory capacity necessary for the build out of cloud infrastructure and for automotive electronics should be strong drivers of innovation and growth in the next customer investment round. We are excited about our industry's prospects and the opportunities we have to create value for all our stakeholders.

In closing, we want to thank all our employees, customers, suppliers, business partners and shareholders for helping us navigate the current environment and prepare Besi for its next phase of growth.

Board of Management
Richard W. Blickman

February 19, 2019

Strategy



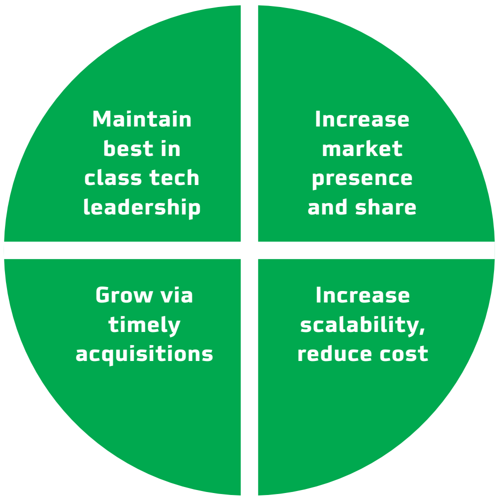
Dieter Rams

Dieter Rams is a German industrial designer closely associated with the consumer products company Braun and the functionalist school of industrial design. His unobtrusive approach and belief in "less but better" design generated a timeless quality in his products and have influenced the design of many products.

Strategy

Strategic objective
Besi's objective is to become the world's leading supplier of semiconductor assembly equipment for advanced packaging applications and to exceed industry average benchmarks of financial performance. It also strives to create long-term value for its stakeholders and operate its business in a sustainable way respecting both the environment and society.

SUMMARY STRATEGY



Besi's Board of Management conducted a comprehensive review of its strategy, market position and operations with an independent consulting firm in the fourth quarter of 2016. Upon completion of the review, revenue, organizational and cost initiatives were set for implementation by 2021 and owners designated per initiative. Senior management has actively pursued such initiatives which have favorably influenced Besi's financial performance and competitive position in recent years.

Strategic initiatives
The key initiatives to realize Besi's strategic objectives include:

- Developing new products and markets.
- Expanding addressable markets, market share and revenue growth potential.
- Strengthening and expanding strategic long-term customer relationships.
- Expanding Besi's Asian operations, capabilities and supply chain.
- Developing common platforms and common parts for its systems.
- Achieving a more scalable, flexible and lower cost manufacturing model.
- Selectively acquiring companies with complementary technologies and products.
- Pursuing a CSR strategy which balances Besi's business interests with its social and ecological responsibilities.
- Creating a workplace culture that encourages safe working conditions, respects human rights and diversity and promotes career development.

Through the implementation of its strategy, Besi seeks to (i) increase revenue at rates exceeding the growth rate of the assembly equipment market, (ii) become a more efficient and profitable company with increased market share in those segments of the assembly equipment market with the greatest potential for long-term growth and (iii) significantly enhance scalability and flexibility to respond more effectively to volatile industry order patterns.

Besi seeks to achieve its strategic objectives in a socially responsible manner for the benefit of all stakeholders, partners, the environment and the local communities in which it operates. In addition, Besi wants to be a meaningful partner in the emerging digital society and to further advance information and communication technologies which can benefit sustainability themes in the future. We are also committed to being a good employer and to foster a workplace culture that encourages our employees to grow and excel in their careers.

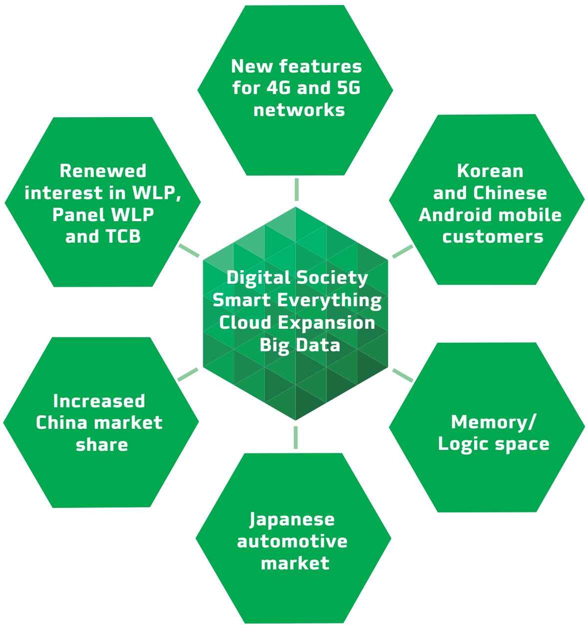
Developing new products and markets
Besi aims to provide global semiconductor manufacturers and subcontractors a compelling value proposition consistent with market requirements and new product development roadmaps. We seek to differentiate ourselves in the marketplace by means of a technology led product strategy that capitalizes on revenue opportunities in both premium and mainstream assembly equipment markets. Besi enters such markets with leading edge technology and products appealing to the first movers of its industry, typically leading global semiconductor manufacturers and other advanced industrial end-users. Upon commercial acceptance, we then attempt to maximize the return on investment of our products through continued system cost reduction so that they appeal to a broader, more mainstream customer base and extend their product life cycle. Mainstream customers are typically Asian assembly subcontractors. Besi exits product markets when its technology becomes commoditized and returns on investment become unattractive. In pursuing its product strategy, Besi uses its core competency to (i) increase revenue by expanding its addressable market and market share and (ii) maximize the return on its technology investment.

Over the past five years, Besi has developed next generation die attach and packaging systems with a particular emphasis on substrate and wafer level packaging processes for mobile internet, computing and automotive end-user applications. Development efforts have focused on customer requirements for (i) higher levels of miniaturization, (ii) increased accuracy, performance and chip density, (iii) lower power consumption and (iv) shorter lead times, all at a lower overall cost of ownership. In addition, we design enhanced versions of each product line every one to two years to ensure that our systems maintain their technological leadership in the areas of form factor, accuracy and throughput for next generation devices and applications.

Key highlights in recent years include the development for production environments of:

- <3-micron accuracy flip chip and fan out wafer level die bonding systems and wafer level molding systems.
- A line of die bonding systems capable of assembling complex, <5-micron accuracy modules incorporating multiple components for advanced mobile internet applications such as fingerprint and facial recognition and 3D image sensing.
- Industry leading TCB die bonding systems to assemble next generation devices.
- Leading edge solar and 3D lithium-ion battery plating systems.

BESI REVENUE GROWTH DRIVERS



Expanding addressable markets, market share and revenue growth potential

We seek to increase Besi's long-term revenue growth by expanding our addressable markets and market presence via the following strategies:

- Capitalize on Besi's advanced packaging expertise to capture sales for new device introductions and applications in the emerging digital society.
- Apply our leadership positions in eWLB, TCB, Panel WLP and ultra thin and wafer level molding to engage with customers at the forefront of leading edge applications such as 5G network compatibility, artificial intelligence, autonomous and electric cars, virtual and augmented reality and cloud computing.
- Further penetrate the largest global smart phone and electronics supply chains with both high-end and high quality mainstream product offerings.
- Roll out 3D imaging, facial recognition and other features to 4G and 5G mobile customers and supply chains.
- Expand our market share of Korean and Chinese Android mobile customers and of the Japanese automotive supply chain.
- Sell next generation equipment to increase Besi's share of wallet in the memory/logic space.
- Expand in the local Chinese handset, semiconductor and electronics industries.
- Gain market share from increased usage of flip chip, eWLB and TCB assembly processes versus more conventional wire bonding solutions.
- Expand penetration of plating markets including high-end solar and battery plating applications.

The expansion of Besi's addressable markets and revenue potential will be aided by ongoing efforts to further improve our competitive cost position via Asian manufacturing and common platform initiatives, a further reduction of European based costs and the diversification and expansion of our Asian production capabilities.

Strengthening and expanding strategic long-term customer relationships

One of Besi's primary business objectives is to develop close, strategic relationships with customers deemed critical to our technological leadership and growth. Besi's customer relationships, many of which exceed fifty years, provide us with valuable knowledge about semiconductor assembly requirements as well as new opportunities to jointly develop assembly systems. As such, they provide Besi with an important insight into future market trends and an opportunity to broaden the range of products sold to customers.

In order to sustain close relationships with customers and generate new product sales, Besi believes that it is critical to maintain a significant presence in after-sales and service in each of its principal markets. As such, Besi currently has eight regional sales and service offices in Europe, the Asia Pacific region and the United States and a direct sales force and customer service staff of 234 people at year end 2018, of whom 197 are located in Asia. Consistent with the migration of customers to Asia, we have strengthened our sales and customer service activities in this region and have shifted a significant portion of our resources to countries such as Malaysia, Singapore, China, Taiwan and Korea. We plan to expand our Asian process support, order fulfillment and field service capabilities over the next five years to better serve a rapidly growing installed base of customers in the region.

CURRENT OPERATIONAL PROFILE

- Development activities in Europe
- Production in Asia
- Sales/service activities in Asia, US and Europe

● Sales office
● Production site
● Sales, production and R&D site

YTD December 31, 2018	Europe/NA		Asia	
Revenue (millions)	€ 176.5	33.6%	€ 348.8	66.4%
Headcount	523	29.7%	1,236	70.3%

Expanding Asian operations, capabilities and supply chain

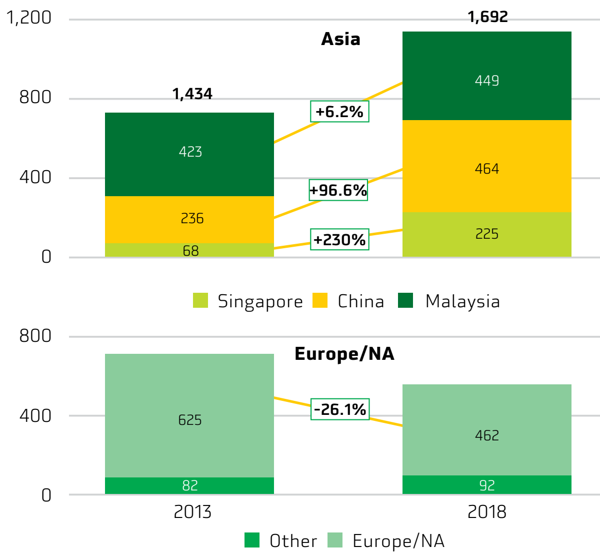
Besi has restructured its operations and made capital investments over the past 10 years in an effort to improve profitability, expand production capacity and better service a customer base that has migrated from Europe and North America to Asia. In particular, we have funded expansions of our Malaysian and Chinese production facilities and Singapore development/sales and service center. In addition, we have significantly reduced our European and North American workforce, closed inefficient operations and transferred substantially all European production and all tooling capacity to our Malaysian and Chinese facilities.
As a result, Besi has reduced labor and material costs, increased manufacturing flexibility and scalability, improved delivery times and inventory turnover and enhanced its local customer presence. In 2018, approximately 66% of revenue was derived from sales to Asian customer locations.

Besi's Asian strategy focuses on the transfer to its Asian facilities of substantially all system production, sourcing, product applications engineering, process and software support and tooling/spares operations. In this concept, product ownership and responsibility for new product development remains at our European operations. Only highly customized systems are produced in Europe for which we generate attractive gross margins. In recent years, Besi has also diversified its manufacturing and engineering capabilities in Asia, significantly increasing operations in China and Singapore to further drive cost reduction, increase capacity, technical and field service support and enhancing its local customer presence. Additional selling, general and administrative functions will be transferred over the next five years from Besi's European locations to our operations in Singapore, Malaysia and China. Key highlights over the past two years included:

- Completion of the build out of Besi's Singapore sales, service and development center for the Asian region, including an expansion of Singapore personnel by approximately 40%.
- The growth of Chinese sales and customer support personnel to better serve a growing installed base in the region.
- Completion of an expansion program to double Chinese production capacity including Besi's full range of die bonding and packaging systems.

In 2019, Besi's key priorities include initiatives to optimize its Asian supply chain including additional vendor consolidation, further reduce break even production cost levels and transfer more selling, general and administrative functions and personnel from Europe to Asia.

BESI GEOGRAPHIC HEADCOUNT TRENDS



Developing common platforms and common parts for its systems

Besi is re-engineering several of its existing product platforms to reduce their overall cost and manufacturing cycle time through more standardized design and manufacturing processes. As part of the streamlining process, we have focused on the development of common parts and common platforms for each successive, next generation die bonding and packaging system with the objective of decreasing the number of platforms for such products. This initiative will enable Besi to (i) reduce the number of components and machine parts per system, (ii) decrease average component costs, (iii) greatly simplify design engineering, (iv) shorten cycle times and (v) lower warranty expense. In this manner, Besi expects to achieve additional labor cost, supply chain and working capital efficiencies.

Team building day Besi APac, Malaysia

Achieving a more scalable, flexible and lower cost manufacturing model

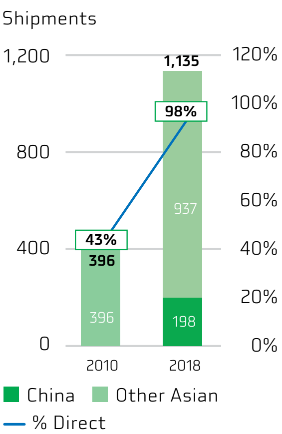
The semiconductor equipment market has become increasingly more volatile in recent years due to heightened global economic uncertainty, changing end market applications, more seasonal purchasing patterns and shorter lead times for delivery. In response, Besi decided to fundamentally reorganize its global operations and management structure starting in 2007 to streamline operations, transfer production and supply chain activities to its Asian operations, improve returns from its product portfolio, reduce break even revenue levels and increase through cycle profitability.
In addition, strategic initiatives were implemented to (i) increase the scalability and flexibility of Besi's production model via the use of temporary Asian production personnel and the establishment of a high quality and scalable Asian supply chain network, (ii) transfer certain logistics, software support and technical personnel from Europe to Asia and (iii) simplify and harmonize diverse manufacturing and IT processes.

Key organizational goals realized over the past five years included (i) a substantial reduction in European facility space and fixed headcount, (ii) ongoing reductions in SG&A overhead, (iii) lower unit manufacturing costs and cycle times, (iv) the development and staffing of an Asian development sales, customer support and development center in Singapore, (v) increased material cost efficiencies, (vi) a significant expansion of our Chinese production capabilities and Asian production flexibility and (vii) the roll-out and implementation of the SAP ERP system to all operations worldwide.

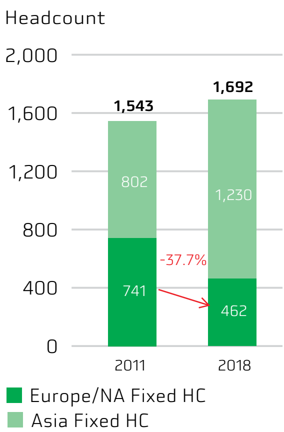
Through the successful execution of strategic initiatives, we have developed a highly scalable Asian production and supply chain model which can respond rapidly to changes in market conditions. As a result, we were able to upwardly scale orders in 2016, 2017 and 2018 by 39%, 207% and 58%, respectively, from trough to peak in response to increased customer demand. Similarly, Besi was able to downscale production by 25%, 46% and 60% from peak to trough in 2016, 2017 and 2018, respectively,

ASIAN PRODUCTION TRANSFER HAS HELPED REDUCE BREAK EVEN REVENUE LEVELS

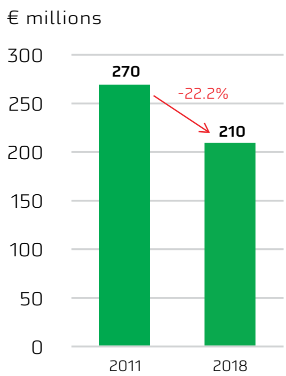
Asian production has significantly expanded



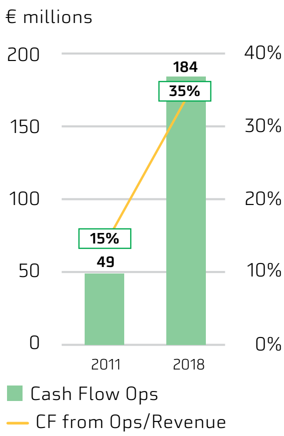
Leading to lower fixed European & NA headcount



Reduced break even revenue levels



Improved cash generation



while maintaining gross margins in excess of 50% and relatively high levels of profitability compared to prior periods. Increased scalability and flexibility have been important factors contributing to our improved competitive position in recent years. Increased order scalability combined with tight inventory control have also significantly expanded Besi's cash generation and market share potential.

Selectively acquiring companies with complementary technologies and products

In order to provide customers with leading edge process solutions, it is critically important to identify and incorporate new technologies on a timely and continuous basis. As a result, Besi actively identifies and evaluates acquisition candidates that can assist it in (i) maintaining process technology leadership, (ii) increasing market share in those assembly markets with the greatest long-term potential such as wafer level packaging, (iii) enhancing the productivity and efficiency of our Asian manufacturing operations and (iv) growing less cyclical, "non-system" related revenues from tooling, spares and service.

Besi has made four important acquisitions which have furthered its advanced packaging strategy and accelerated underlying organic growth:

- In September 2000, RD Automation (USA) was acquired to advance Besi's product strategy into the front end assembly process with the addition of flip chip capabilities.
- In January 2002, Laurier (USA) was acquired adding intelligent die sorting capabilities into its product range.
- In January 2005, Besi acquired Datacon (Austria) further extending its presence in the flip chip and die bonding equipment markets and increasing its scale in the assembly equipment market.
- In April 2009, Besi acquired Esec (Switzerland) to expand its position in the mainstream die bonding market, one of the most rapidly growing segments of the assembly equipment business.

Pursuing a CSR strategy which seeks to promote Besi's business interests in a sustainable way

Besi has developed a corporate social responsibility ("CSR") policy which seeks to promote its business and financial interests in a socially responsible manner. Our CSR policy focuses on the impact of our products, operations and supply chain on the environment and the communities in which we operate. See "Corporate Social Responsibility and Non-Financial Information" on pages 41 to 53.

BESI'S STRATEGIC CSR OBJECTIVES

In recent years, we have reduced the impact of our production operations through programs designed to (i) eliminate materials and processes deemed harmful to the environment, (ii) conserve natural resources such as water and electricity and (iii) reduce packaging, waste, transportation and energy consumption. Besi places particular emphasis on transportation and packaging activities where we have realized reductions of CO_2 emissions and waste/unit of revenue. In addition, Besi has invested in the development of low carbon products and services to help customers operate more efficiently both in terms of environmental impact and cost savings, for instance by introducing products with fewer and lighter materials. We also analyze and investigate ways in which to reduce other environmentally harmful materials such as the usage of lead in our systems.

Key CSR achievements in Besi's operations and supply chain over the past three years have included:

- Adoption of a Conflict Minerals Policy which explicitly excludes conflict minerals from product development.
- Full compliance with ISO 9001 and ISO 14001 standards for all production facilities.
- Risk assessments of Besi's anti-corruption and fraud practices and implementation of key recommendations for which the process is ongoing.
- Improvement in internal KPI metrics and targets relative to supplier compliance objectives.
- Significant reduction in relative energy and waste usage and increased water efficiency in its operations.
- Launch of an energy efficiency audit at our principal Malaysian manufacturing operations.
- Receipt of RBA ("Responsible Business Alliance") audit certification.

For 2019, Besi's major CSR priorities include (i) the implementation of recommendations resulting from our ongoing risk assessment project with a particular focus on enhancements to our fraud and anti-bribery and corruption policies, particularly in Asia, (ii) further increasing compliance by our supply chain with the RBA Code of Conduct and CMRT, (iii) continuous development of initiatives in response to the employee engagement survey and (iv) improving internal reporting and monitoring of KPI compliance and target achievement on a quarterly basis.

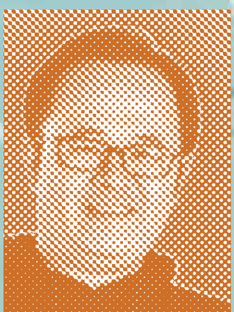
Creating a workplace culture that encourages safe working conditions, respects human rights and diversity and promotes career development

Besi is committed to being a good employer and to promote a workplace culture conducive to the achievement of its business and CSR objectives. Its human resources strategy is based on four pillars: (i) improving service excellence, (ii) increasing diversity, (iii) developing talent and leadership capabilities and (iv) fostering a workplace culture that encourages employees to grow and excel in their careers. Besi strives to employ high social and ethical standards and to provide inspiring and safe working conditions with competitive employment terms and pay scale. A high level of employee satisfaction is a basic precondition to achieve our revenue and profit growth objectives. The 2017 biennial employee engagement survey indicated a very high level of satisfaction in the organization.

We have helped promote employee engagement and improvements to our workplace culture via the following activities over the past three years:

- Development of initiatives to promote diversity and encourage the hiring of younger and female employees.
- Establishment of a talent management and succession planning program for key employees at all Besi locations worldwide.
- Initiation of biennial employee satisfaction and employee engagement surveys at all Besi locations as a means of better identifying and responding to employee concerns.
- Established best practices Whistleblower procedure.

Financial Review



George Yan

George Yan is COO/co-founder of EHang Inc. and responsible for the operation of the EHang intelligent unmanned aerial vehicle. EHang 184 AAV is the safest, smartest and eco-friendly low altitude autonomous aerial vehicle, aiming on providing medium-short distance communication and transportation solution.

Financial Review

General

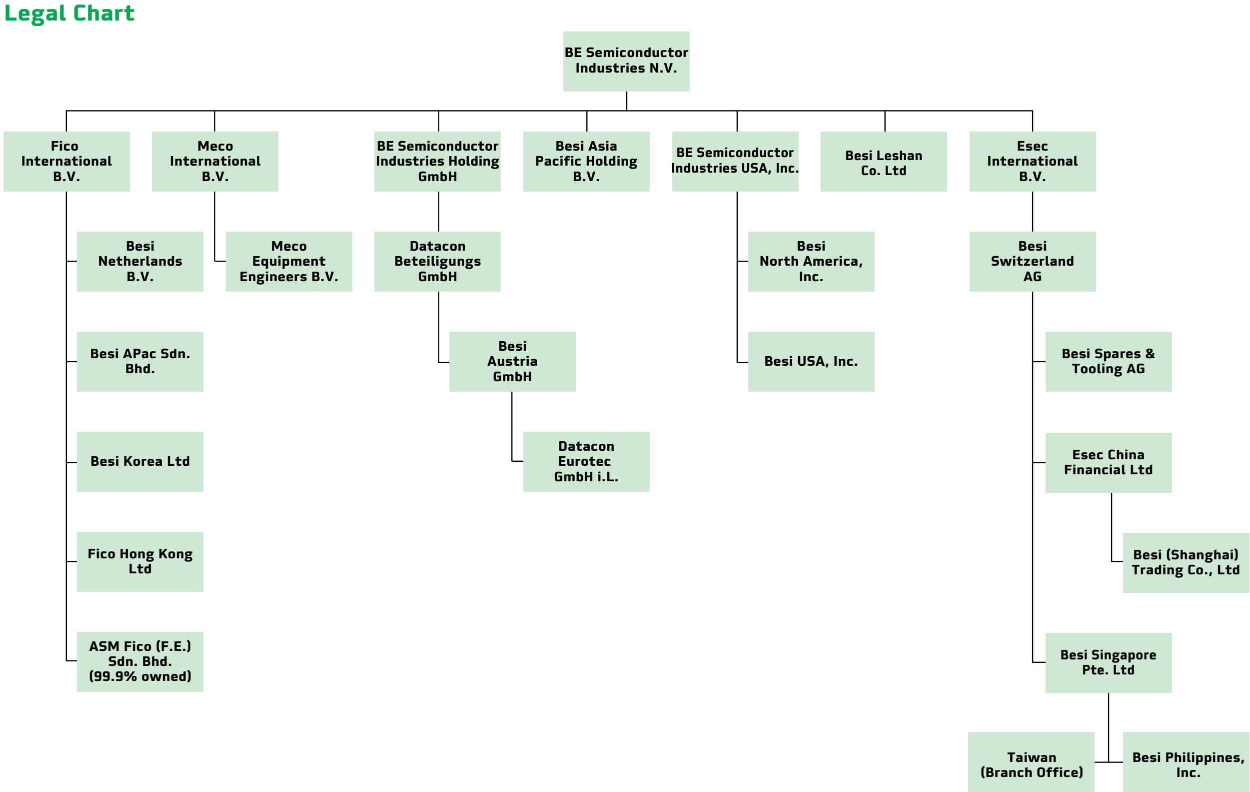
BE Semiconductor Industries N.V. (“Besi” or the “Company”) is engaged in one line of business, the development, manufacturing, marketing, sales and service of semiconductor assembly equipment for the global semiconductor and electronics industries. Since Besi operates in one segment and in one group of similar products and services, all financial segment and product line information can be found in the Consolidated Financial Statements.

Besi’s revenue and results of operations depend in significant part on the level of capital expenditures by semiconductor manufacturers, which in turn depends on the current and anticipated market demand for semiconductors and for products utilizing semiconductors. Demand for semiconductor devices and expenditures for the equipment required to assemble semiconductors is highly cyclical, depending in large part on levels of demand worldwide for smart phones, tablets and other personal productivity devices, computing and peripheral equipment and automotive and industrial components, as well as the production capacity of global semiconductor manufacturers. Furthermore, a rise or fall in the sales levels of semiconductor equipment typically lags any downturn or recovery in the semiconductor market due to the lead times associated with the production of semiconductor equipment.

In recent years, Besi has experienced significant upward and downward movements in quarterly order rates due to global macroeconomic concerns and increased seasonality of end-user application revenue. Customer order patterns have become increasingly more seasonal due to the growing influence of more retail oriented electronics applications in the overall demand for semiconductor devices such as smart phones, tablets, wearable devices and automotive electronics. Order patterns have been characterized by a strong upward ramp in the first half of the year to build capacity for anticipated year end demand followed by a subsequent decline in the second half of the year as capacity additions are digested by customers. Volatile global macroeconomic conditions and seasonal influences have also contributed to the significant upward and downward movements in Besi’s quarterly and semi-annual revenue and net income.

Besi’s revenue is generated primarily by shipments to the Asian manufacturing operations of leading European and American independent device manufacturers (“IDMs”) and Taiwanese, Chinese, Korean, Japanese and other Asian IDMs and subcontractors. Besi’s sales to individual customers tend to vary significantly from year to year depending on global economic conditions generally and the specific capital expenditure budgets, new product introductions, production capacity and packaging requirements of its customers. For the year ended December 31, 2018, one customer represented 16.1% of Besi’s revenue and its largest 10 customers accounted for 54.2% of revenue. In addition, Besi derives a substantial portion of its revenue from products that have an average selling price in excess of € 250,000 and that have lead times of approximately 4-8 weeks between the initial order and delivery of the product. The timing and recognition of revenue from customer orders can cause significant fluctuations in operating results from quarter to quarter.

Legal Chart



Corporate and financial structure

Besi's corporate organization consists of a Dutch holding company in which shareholders own ordinary shares and a network of predominantly wholly-owned subsidiaries located globally which reflects its product group and business activities. The chart on page 22 presents Besi's legal organization as of December 31, 2018. To get a better overview of Besi's largest shareholders, reference is made to Shareholder Information on page 57.

In general, Besi funds its operations through available cash on hand, cash generated from operations and, in some instances, funds the operations of its subsidiaries through intercompany loans. In addition, some of its subsidiaries maintain lines of credit with various local commercial banks to meet their internal working capital needs. Please refer to pages 27 to 29 for a detailed analysis of Besi's financial structure at December 31, 2018.

Currency exposure

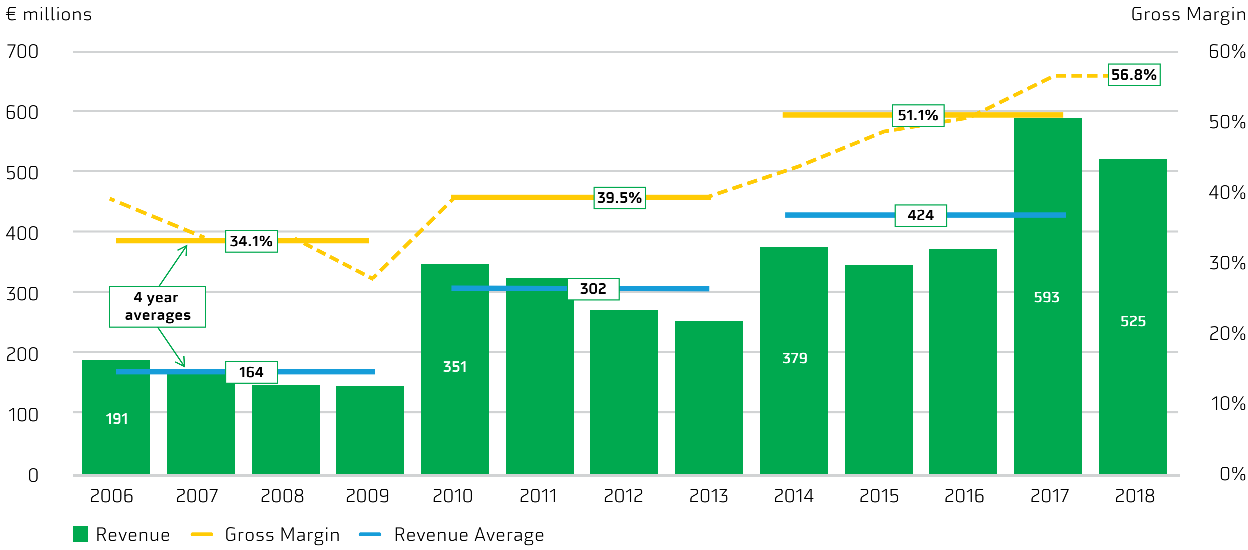
Besi's reporting and functional currency is the euro. In 2018 and 2017, Besi's revenue denominated in euro represented 33% and 18% of its total revenue, respectively, while its costs and expenses denominated in euro represented 29% and 21%, respectively. As seen in the following table, the substantial majority of Besi's revenue is denominated in US dollars while in 2018, its costs were denominated in a variety of European and Asian currencies. In 2018, 60% of its costs and expenses were denominated in Malaysian ringgit and euro. The remainder of its costs were primarily represented by the Swiss franc, Chinese yuan, US dollar and Singapore dollar. Besi seeks to manage its exposure to currency fluctuations in part by hedging firmly committed orders denominated in US dollars and, in part, by hedging net exposures in its principal transaction currencies. Transaction costs for hedging sales contracts and any profit/loss resulting therefrom are recorded in the line item financial income (expense), net in Besi's Consolidated Income Statement.

			Revenue
	2018	**2017**	**2016**
Euro	33%	18%	25%
US dollar	67%	82%	74%
Other	-	-	1%
Total	**100%**	**100%**	**100%**

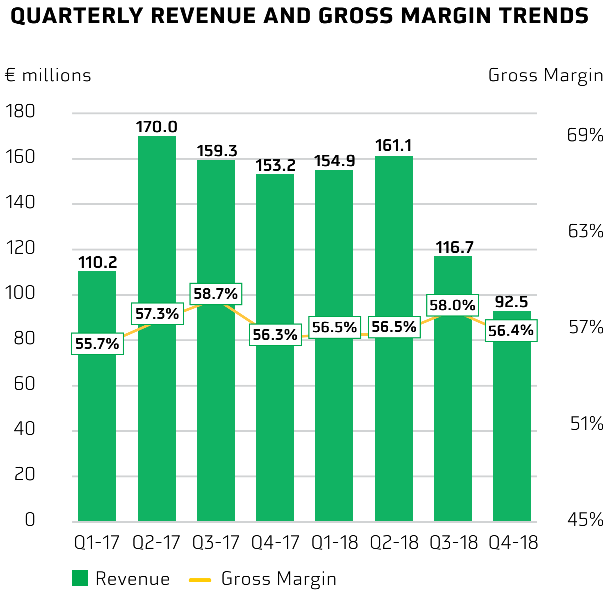
			Costs and Expenses
	2018	**2017**	**2016**
Euro	29%	21%	26%
US dollar	9%	9%	5%
Malaysian ringgit	31%	31%	30%
Swiss franc	12%	19%	21%
Chinese yuan	10%	13%	11%
Singapore dollar	6%	5%	4%
Other	3%	2%	3%
Total	**100%**	**100%**	**100%**

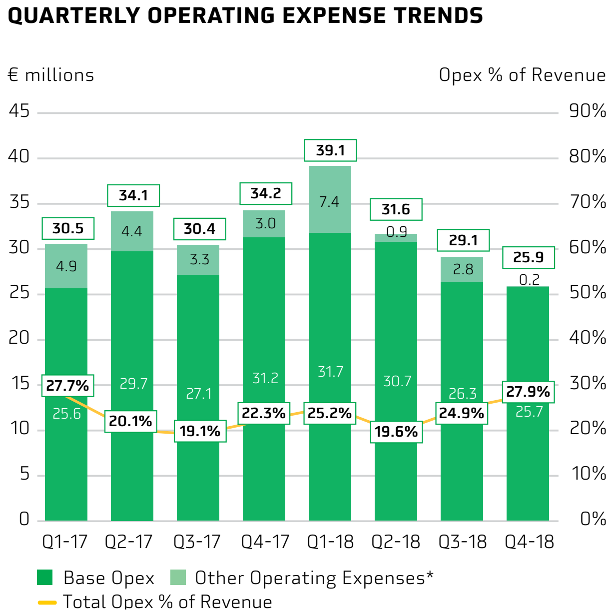
Given changes in the foreign currency composition of its revenue, costs and expenses, Besi's results of operations are increasingly affected by fluctuations in the value of, and relationships between, the euro, the US dollar, Malaysian ringgit, Swiss franc, Chinese yuan and Singapore dollar. In 2018, the 4.5% average reduction in the value of the US dollar versus the euro adversely affected Besi's revenue development. In contrast, Besi's costs and expenses were favorably influenced primarily by a decline in the value of the Swiss franc, Singapore dollar, Chinese yuan and US dollar versus the euro.

STEP FUNCTION GROWTH IN REVENUE AND GROSS MARGIN SINCE 2006



Results of operations





* Other operating expenses include R&D capitalization/amortization, foreign exchange, restructuring cost/(benefit), variable compensation, pension curtailment and one-time consulting costs.

(euro in millions)	Q1	Q2	Q3	Q4	2017 Total	Q1	Q2	Q3	Q4	2018 Total
Revenue	110.3	170.0	159.3	153.2	**592.8**	154.9	161.1	116.7	92.5	**525.3**
Orders	239.8	130.1	161.6	149.4	**680.9**	205.8	86.3	107.9	83.1	**483.1**
Net income	24.3	52.4	52.9	43.6	**173.2**	37.1	47.2	29.3	22.7	**136.3**

2018 compared to 2017

Besi's results of operations in 2017 were favorably influenced by an improvement in global economic conditions and the continuation of a semiconductor industry upturn which commenced in the second half of 2016 and continued through the first half of 2018. This extended industry upturn ended in the second quarter of 2018 with a sharp reduction in global demand for smart phones as capacity was digested from the 2016-2018 period and global growth began to slow. Slowing demand for this end-user application was then followed in the second half of the year by weakness in Besi's computing and automotive end-user markets. Such adverse influences on Besi's three principal end-user markets caused second half 2018 revenue and net income levels to decline significantly versus the second half of 2017.

In recent years, Besi's first half year revenue and net income have increased as compared to the prior semi-annual period as customers significantly added incremental semiconductor assembly capacity to meet rising orders for smart phones and automotive electronics and new device introductions. Typically, the seasonal upcycle has ended by early summer as customers digest incremental capacity additions made in the first half year. Besi's second half 2017 quarterly results varied from the traditional pattern in that second half revenue and net income exceeded first half year results by 11.5% and 25.8%, respectively, given favorable macroeconomic trends and the extended nature of the most recent industry upturn. Second half 2018 order trends followed more traditional patterns albeit at higher rates of decline in the second half of the year relative to prior years given the sudden downward turn of industry conditions particularly for mobile and computing applications.

Revenue/Orders

(euro in millions)	Year ended December 31, 2018	2017	% Change 2018/2017
Revenue	525.3	592.8	(11.4%)
Orders	483.1	680.9	(29.0%)
IDM	328.7	443.5	(25.9%)
Subcontractors	154.4	237.4	(35.0%)

Besi's revenue decreased by € 67.5 million, or 11.4 %, in 2018 versus 2017 due primarily to lower die bonding shipments for smart phone applications partially offset by higher revenue for Besi's packaging, plating and spares/service revenue. The revenue decrease was also negatively influenced by a 4.5% average decrease in the value of the US dollar versus the euro during the year.

Similarly, orders in 2018 decreased by 29.0% versus 2017. The order decrease was broad based across product lines and end-user applications, with particular weakness in die bonding orders for smart phone applications by IDM customers and their respective supply chains. In 2018, bookings by IDMs and subcontractors represented approximately 68% and 32%, respectively, of Besi's total orders versus 65% and 35%, respectively, in 2017.

Gross profit

(euro in millions)		2018 % revenue		Year ended December 31, 2017 % revenue	Change 2018/2017 % points
Gross profit	298.5	56.8%	338.6	57.1%	(0.3)
Restructuring charges (benefit)	0.4	-	-	-	-
Adjusted gross profit	**298.9**	**56.8%**	**338.6**	**57.1%**	**(0.3)**

Gross profit decreased by € 40.1 million, or 11.8%, versus 2017 primarily as a result of lower revenue levels. Despite such decrease, Besi's gross margin reduced only slightly to 56.8% versus 57.1% in 2017 due primarily to Besi's realignment of temporary production overhead and supply chain in response to changing market conditions. Gross margin levels in 2018 were also negatively influenced by adverse forex influences from changes in the value of the US dollar and Malaysian ringgit versus the euro.

Selling, general and administrative expenses

(euro in millions)		2018 % revenue		Year ended December 31, 2017 % revenue	Change 2018/2017 % points
SG&A expenses	90.3	17.2%	93.3	15.7%	1.5
Restructuring benefit (charges)	(0.6)	(0.1%)	-	-	(0.1)
Impairment on tangible assets	(0.4)	(0.1%)	-	-	(0.1)
Amortization of intangible assets	(0.5)	(0.1%)	(0.5)	(0.1%)	-
Adjusted SG&A expenses	**88.8**	**16.9%**	**92.8**	**15.6%**	**1.3**

Total SG&A expenses decreased by € 3.0 million, or 3.2%, in 2018 versus 2017. The 2018 decrease was due primarily to € 9.1 million of lower warranty and commission costs primarily associated with Besi's 11.4% revenue decrease partially offset by (i) € 3.2 million of higher personnel costs primarily related to the build out of Besi's Asian sales and service capabilities and (ii) € 3.1 million of increased share based compensation expense. As a percentage of revenue, SG&A expenses increased from 15.7% in 2017 to 17.2% in 2018.

Research and development expenses

(euro in millions)		2018 % revenue		Year ended December 31, 2017 % revenue	Change 2018/2017 % points
R&D expenses	35.5	6.7%	35.9	6.1%	0.6
Capitalization of development costs	11.4	2.2%	6.7	1.1%	1.1
Amortization of development costs	(8.9)	(1.7%)	(8.0)	(1.4%)	(0.3)
Adjusted R&D expenses, net	**38.0**	**7.2%**	**34.6**	**5.8%**	**1.4**

Besi's R&D spending is primarily focused on advancing its leadership position in advanced packaging process technology and regular system upgrades but can vary from year to year depending on specific customer road maps and the timing of new device introductions. R&D expense of € 35.5 million in 2018 declined slightly versus 2017 but, as a percentage of revenue, increased to 6.7% in 2018 versus 6.1% in 2017 as a result of lower revenue levels. On an as adjusted basis, Besi's R&D expenses grew by € 3.4 million (9.8%) to € 38.0 million due primarily to higher spending associated with next generation product introductions.

Restructuring charges

Besi recorded € 1.0 million in restructuring charges during 2018 principally in connection with the transfer of certain tooling and support functions from Europe to Asia. No restructuring charges were incurred in 2017. Restructuring charges are recognized in the following line items in Besi's Consolidated Statement of Comprehensive Income:

(euro in millions)	Year ended December 31, 2018	2017
Cost of sales	0.4	-
SG&A expenses	0.6	-
R&D expenses	-	-
Total	**1.0**	**-**

Impairment of assets

Besi tests the value of its goodwill and other assets on its balance sheet according to IFRS on an annual basis or if a trigger for impairment occurs. An impairment charge of € 0.4 million was recorded in 2018 primarily related to the write-down of the value of land at one of its Dutch properties. There were no impairment charges in 2017.

Operating income

Besi reported operating income of € 172.7 million in 2018, a decrease of 17.5% versus 2017. Similarly, operating margins declined from 35.3% to 32.9% primarily as a result of lower revenue and gross margins partially offset by lower operating expenses. The following table presents Besi's operating income for 2018 and 2017 and as adjusted for restructuring and impairment charges reported during each respective period.

(euro in millions)	Year ended December 31, 2018	2017
Operating income	172.7	209.4
% of revenue	32.9%	35.3%
Restructuring charges	1.0	-
Impairment charges	0.4	-
Adjusted operating income	**174.1**	**209.4**
% of revenue	33.1%	35.3%

Financial income (expense), net

The components of Besi's financial income (expense), net, for the years ended December 31, 2018 and 2017, were as follows:

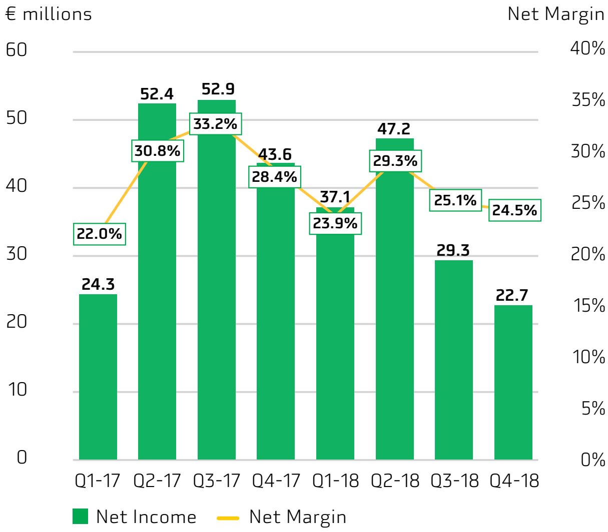
(euro in millions)	Year ended December 31, 2018	2017
Interest income	-	0.6
Interest expense	(9.8)	(5.5)
Interest income (expense), net	**(9.8)**	**(4.9)**
Hedging results	(7.5)	(3.5)
Net foreign exchange effects	(0.5)	(1.8)
Financial income (expense), net	**(17.8)**	**(10.2)**

Besi's financial expense, net, increased by € 7.6 million in 2018 primarily due to higher interest expense related to the issuance in December 2017 of € 175 million of Convertible Notes as well as € 4.0 million of increased hedging costs related to adverse movements in the relationship of the euro and Besi's principal transactional currencies.

Income taxes

Besi recorded income taxes of € 18.7 million in 2018 and € 26.1 million in 2017 with effective tax rates of 12.1% and 13.1%, respectively. The lower effective tax rate in 2018 was mainly due to tax credits of € 4.8 million related to the Innovation Box program for the period 2015-2018 partially offset by € 3.1 million of higher non-deductible variable compensation expense in Besi's costs and expenses.

QUARTERLY NET INCOME TRENDS



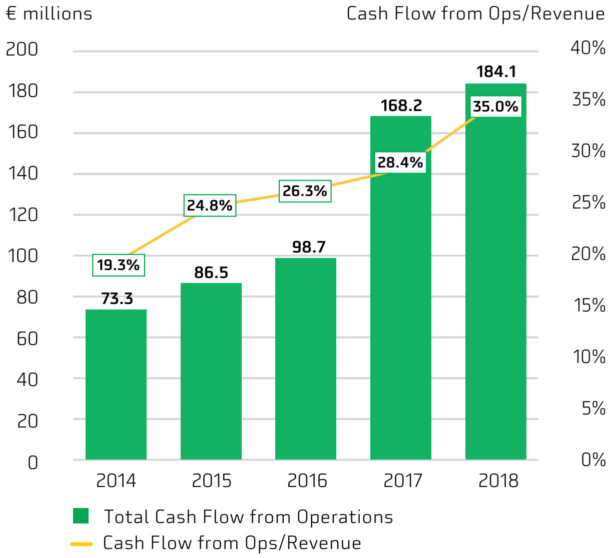
Net income

Besi's net income in 2018 was € 136.3 million, a decrease of 21.3% versus 2017. The following table presents Besi's reported net income in 2018 and 2017 and as adjusted for all restructuring and impairment charges (net of tax) incurred during each respective period.

(euro in millions)	Year ended December 31, 2018	2017
Net income as reported	136.3	173.2
% of revenue	25.9%	29.2%
Restructuring charges	0.8	-
Impairment charges	0.3	-
Adjusted net income	**137.4**	**173.2**
% of revenue	26.2%	29.2%

Besi's € 36.9 million net income decrease versus 2017 was primarily due to its 11.4% revenue decrease, a slight reduction in gross margins and a € 7.6 million increase in financial expense, net. Such adverse effects were partially offset by a 1.0% decrease in Besi's effective tax rate and a € 3.5 million decrease in operating expenses.

CASH FLOW GENERATION TRENDS



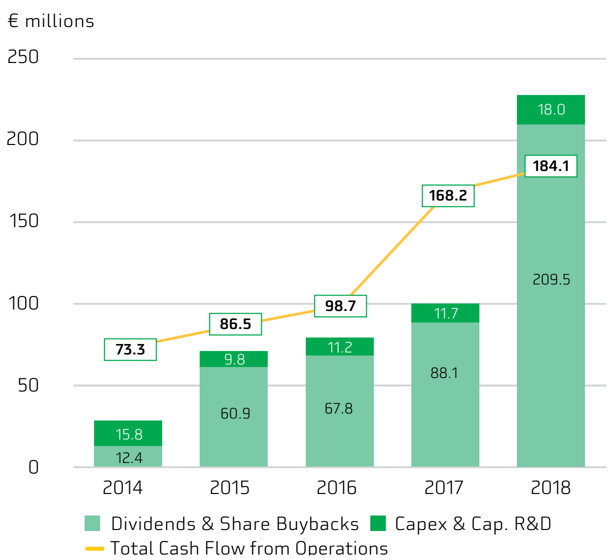
Balance sheet, cash flow development and financing

Cash flow

Besi's cash and deposits decreased by € 52.3 million to reach € 475.5 million at December 31, 2018. The decrease was primarily due to dividends paid and shares repurchased in 2018 aggregating € 209.5 million. During the year, cash flow from operations of € 184.1 million, along with cash, cash equivalents and deposits outstanding, were utilized for the following principal purposes:

- € 174.0 million of cash dividends were paid to shareholders.
- € 35.5 million of ordinary shares were purchased and held in treasury.
- € 11.4 million of development expenses were capitalized.
- € 9.8 million of payments were made primarily to retire bank debts.
- € 6.6 million of net capital expenditures were made.

CAPITAL ALLOCATION/CASH FLOW GENERATION



Similarly, Besi's net cash position of € 199.4 million (defined as cash, cash equivalents and deposits less total debt) decreased by € 48.2 million, or 19.5 %, versus year end 2017.

Working capital

Besi's working capital (excluding cash and debt) decreased by € 19.8 million, or 19.5%, to reach € 81.5 million at December 31, 2018. The decrease was due primarily to lower receivable and inventory levels outstanding associated with the second half 2018 revenue decline.

Capital expenditures

Besi's capital expenditures, net of dispositions, were € 6.6 million and € 5.0 million in 2018 and 2017, respectively. Capital expenditures in 2018 focused primarily on upgrades to its Chinese production capacity and, to a lesser extent, its European development activities. Besi anticipates 2019 capital expenditures of approximately € 4.0 million.

Financing

In general, Besi funds its operations through available cash on hand, cash generated from operations and, in some instances, funds the operations of its subsidiaries through intercompany loans. In addition, some of its subsidiaries maintain lines of credit with various local commercial banks to meet their internal working capital needs. The working capital requirements of its subsidiaries are affected by the receipt of periodic payments on orders from its customers. Although its subsidiaries occasionally receive partial payments prior to final installation, initial payments generally do not cover a significant portion of the costs incurred in the manufacturing of such systems which requires Besi to finance its system production with internal resources and, in certain instances, via bank financing.

External financing structure

At December 31, 2018, Besi had € 276.1 million of total indebtedness outstanding, of which (i) € 271.8 million related to the 2016 and 2017 Convertible Notes (€ 300 million principal amount), (ii) € 1.5 million related to short-term bank loans and (iii) € 2.8 million related to short-term notes payable to banks under Besi's lines of credit. Management does not foresee any issues in refinancing or redeeming its current indebtedness outstanding given its cash, cash equivalents and deposits of € 475.5 million at December 31, 2018 and cash flow generation prospects.

Bank lines of credit

At December 31, 2018, Besi and its subsidiaries had available lines of credit aggregating € 17.9 million. At such date, utilization under the lines aggregated € 3.5 million of which € 2.8 million represented notes payable to banks and € 0.7 million related to bank guarantees. In general, interest is charged at the banks' base lending rates or Euribor/Libor plus an increment. Most credit facility agreements include covenants requiring Besi and/or its subsidiaries to maintain certain financial levels or financial ratios and have no stated contractual maturity. Besi and all of its applicable subsidiaries were in compliance with all loan covenants at December 31, 2018 and 2017.

Team involved in the first Fico AMS-LM shipment from Besi Leshan, China, in April 2018

For more information on Besi's bank lines of credit, please refer to page 104 in the Notes to the Consolidated Financial Statements.

Issuance of Convertible Notes

On December 2, 2016, Besi issued € 125 million principal amount of 2.5% Senior Unsecured Convertible Notes due December 2023 (the "2016 Convertible Notes"). Interest on the 2016 Convertible Notes is payable semi-annually in arrears. The 2016 Convertible Notes will be repaid at maturity at 100% of their principal amount plus accrued and unpaid interest and convert into approximately 6.0 million Besi ordinary shares at a conversion price of € 20.67 (subject to adjustment). The original exercise price of € 43.51 has been adjusted for the two for one stock split effective May 4, 2018 and dividends paid subsequent to the date of issuance according to the terms and conditions related to the 2016 Convertible Notes. The net proceeds from the offering totaled € 122.7 million and were added to Besi's cash and deposits.

On December 6, 2017, Besi issued € 175 million principal amount of 0.5% Senior Unsecured Convertible Notes due December 2024 (the "2017 Convertible Notes"). Interest on the 2017 Convertible Notes is payable semi-annually in arrears. The 2017 Convertible Notes will be repaid at maturity at 100% of their principal amount plus accrued and unpaid interest and convert into approximately 3.6 million Besi ordinary shares at a conversion price of € 48.68 (subject to adjustment). The original exercise price of € 99.74 has been subsequently adjusted for the two for one stock split effective May 4, 2018 and dividends paid subsequent to the date of issuance of the 2017 Convertible Notes. The net proceeds from the offering totaled € 172.3 million and were added to Besi's cash and deposits.

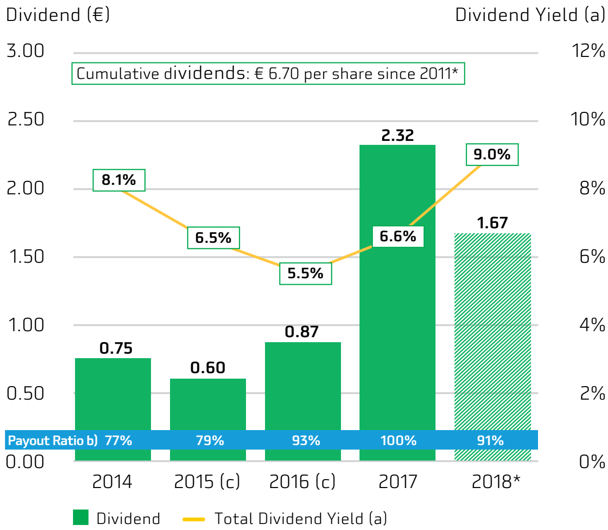
Both the 2016 and 2017 Convertible Notes were privately offered to institutional investors via Morgan Stanley & Co. International and are listed on the Deutsche Börse's Freiverkehr market.

Besi may redeem each of the outstanding 2016 and 2017 Convertible Notes at 100% of their principal amount after December 23, 2020 (in the case of the 2016 Convertible Notes) and after December 27, 2021 (in the case of the 2017 Convertible Notes), provided that on the date of conversion, the market value of its ordinary shares exceeds 130% of the then effective conversion price for a specified period of time. In the event of a change of control (as defined), each noteholder will have the right to require Besi to redeem all (but not less than all) of the Convertible Notes at 100% of their principal amount together with accrued and unpaid interest thereon. The terms and conditions governing each of the 2016 and 2017 Convertible Notes contain no incurrence tests nor maintenance covenants which could materially limit Besi's ability to conduct its operations in the normal course.

Capital allocation

Besi's capital allocation policy seeks to provide a current return to shareholders in the form of cash dividends and share repurchases while retaining a capital base sufficient to fund future growth opportunities.

DIVIDEND TRENDS



a) Based on year end stock price.
b) Based on Basic EPS.
c) Includes special dividend of € 0.10 and € 0.18 in 2015 and 2016, respectively.

* Includes proposed dividend for approval at April 26, 2019 AGM.

Dividends

Besi's dividend policy considers the payment of dividends on an annual basis based upon (i) a review of its annual and prospective financial performance and liquidity/ financing needs, the prevailing market outlook, Besi's strategy, market position and acquisition strategy and/or (ii) a dividend payout ratio in the range of 40-100% relative to net income to be adjusted accordingly if the factors referred to under (i) so require.

Due to Besi's earnings and cash flow generation in 2017, the Board of Management proposed and Besi paid a dividend to shareholders in cash equal to € 4.64 per share in May 2018, (€ 2.32 as adjusted for the May 2018 two for one stock split) which resulted in cash payments to shareholders of € 174.0 million.

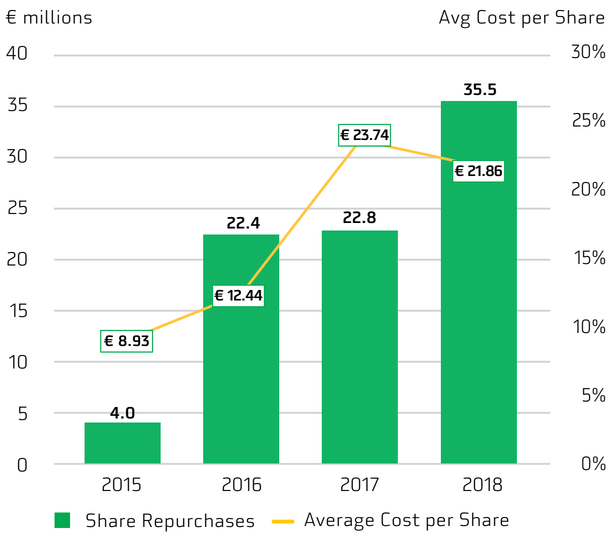
Due to Besi's earnings and cash flow generation in 2018, the Board of Management has proposed a cash dividend of € 1.67 per share for 2018 for approval at Besi's Annual General Meeting of Shareholders on April 26, 2019.

The payments for the year 2017 and proposed for the year 2018 represent a dividend payout ratio relative to net income of 100% and 91%, respectively.

Share repurchase program

In September 2015, Besi initiated a program to repurchase up to a maximum of 2.0 million of its ordinary shares, or approximately 3% of its shares outstanding. The program was successfully completed in October 2017 under which the full 2.0 million shares were repurchased at an average price of € 11.25 for a total of € 22.5 million.

SHARE REPURCHASE ACTIVITY



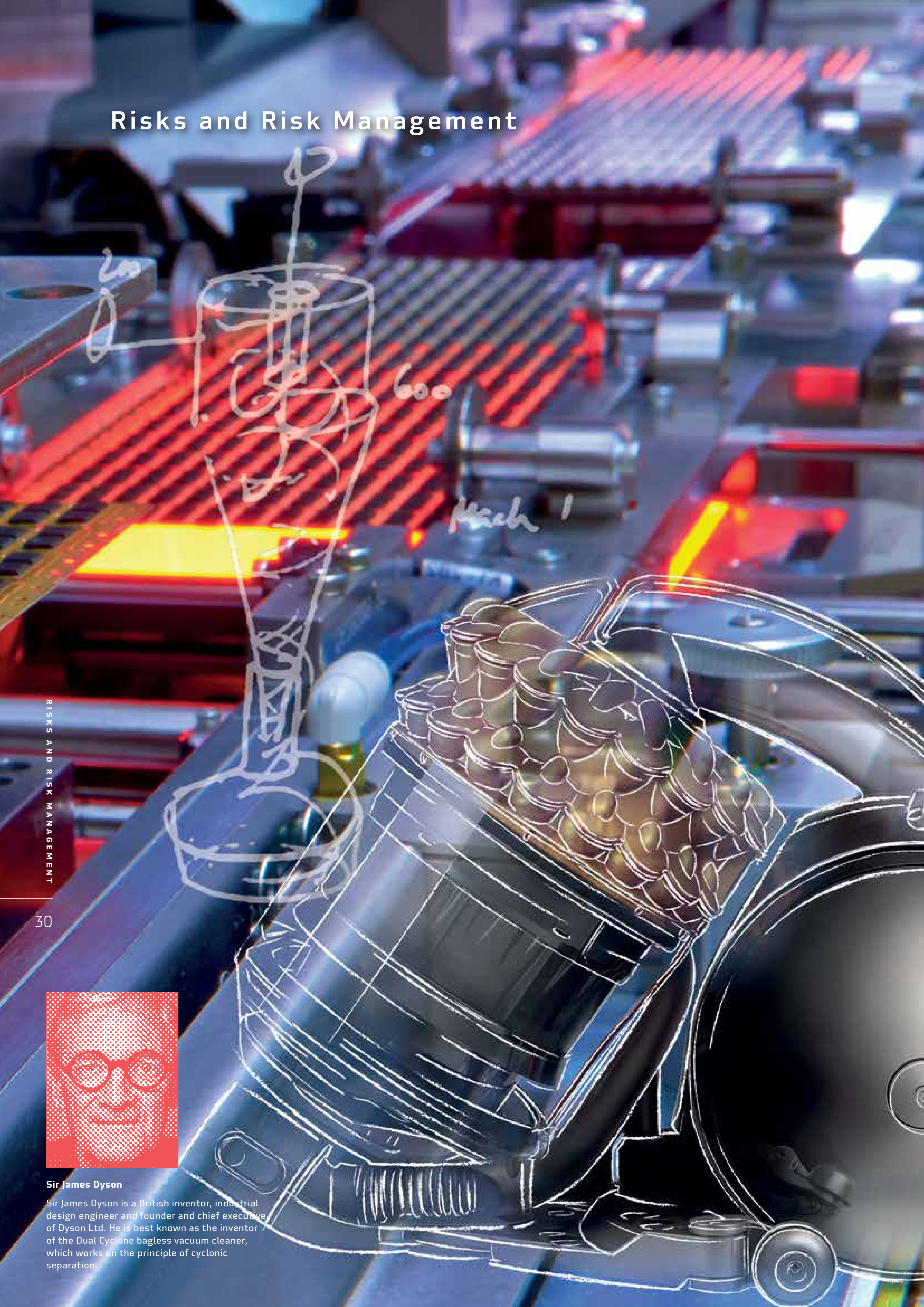
In October 2017, Besi announced the initiation of a new program to repurchase up to a maximum of 2.0 million ordinary shares (2.7% of its outstanding shares at October 27, 2017). This program was terminated in July 2018 under which a total of approximately 1.6 million shares were repurchased at a weighted average price of € 24.63 per share for approximately € 39.7 million.

On July 26, 2018, Besi announced a new € 75 million share repurchase program through October 26, 2019 (the "2018 program") which represented approximately 4.2% of shares outstanding at such date. The repurchase program was initiated for capital reduction purposes and to help offset dilution associated with Besi's 2016 and 2017 Convertible Notes and share issuance under employee stock plans. From program inception through December 31, 2018, a total of 1.2 million shares have been repurchased at an average price of € 18.33 per share for a total of € 22.5 million. Regular repurchase activity continues in 2019.

At present, Besi has shareholder authorization to purchase up to an aggregate of 10% of its ordinary shares outstanding (approximately 8.0 million shares) until October 26, 2019.

Besi believes that its cash position, internally generated funds and available lines of credit will be adequate to meet its anticipated levels of capital spending, research and development, debt service requirements, working capital and capital allocation policy for at least the next twelve months.

Risks and Risk Management



Sir James Dyson

Sir James Dyson is a British inventor, industrial design engineer and founder and chief executive of Dyson Ltd. He is best known as the inventor of the Dual Cyclone bagless vacuum cleaner, which works on the principle of cyclonic separation.

Risks and Risk Management

Over the past decade, the importance of risk management and control systems has grown substantially for Besi as a result of its increased size and complexity, changing market conditions and substantial expansion of its business operations outside of Europe. Besi's risk management and control systems have been designed to address and help limit the risk factors described commencing on page 32. In 2018, the most important components of Besi's internal risk management and control system were:

Financial risk management

- An extensive and documented process for preparing Besi's annual budget, quarterly estimates and reports of its monthly financial and non-financial information compared with the budgeted and quarterly estimated information.
- Monthly business reviews with product group and production site managers with respect to their monthly and quarterly bookings, revenue, backlog, working capital and results of operations together with discussions of general market, economic, technological, ecological and competitive developments.
- Monthly reviews of the foreign currency positions of all significant operating companies.
- Annual documentation and analysis of key risks and the development and control of such risks.
- Weekly management reviews of its business, operations, cash and inventory development.
- Compliance with finance and controlling guidelines governing its financial accounting and reporting procedures.
- Compliance with internal controls over financial reporting that have been implemented in all significant operating companies.
- Regular management review of key staff development.
- Regular analyses of operational risks at the subsidiary level.
- Regular analyses of Besi's capital structure, financing requirements, tax position and transfer pricing system.

All material findings that result from the use of Besi's internal risk management and control system for financial risks are discussed with the Audit Committee and Supervisory Board including the:

- Development of Besi's revenue, orders, results of operations and balance sheet versus budget as well as developments in the global economy and semiconductor assembly equipment market and their impact on Besi's financial results.
- Progress of ongoing cost reduction efforts.
- Status of key customer relationships.
- Analysis of orders lost to competitors and the development of Besi's competitors' business.
- Material developments in Besi's research and development activities.
- Foreign currency exchange rate developments.
- Status of its current corporate governance procedures.
- Status of systems and procedures and activities to monitor and evaluate risks from fraud, bribery or corruption in Besi's operations.

In addition to internal controls over financial reporting, the operation of Besi's internal control system is also assessed by the external auditor where deemed relevant in the context of the audit of the annual Financial Statements. The results of this audit are discussed with the Board of Management and the Audit Committee of the Supervisory Board.

Non-financial and other risk management

Besi also evaluates non-financial and other risks that could affect its business operations. For a full discussion of Besi's non-financial related risks and risk mitigation measures, please refer to the section "Corporate Social Responsibility and Non-Financial Information" on pages 44 to 46.

Other operational risks such as the hedging of financial risks, internal financial reporting and transfer pricing are governed by a set of internal Besi guidelines. In addition, insurance policies are in place to cover the typical business risks associated with Besi's operations and are reviewed every year. Besi's policies regarding foreign currency hedging, interest rate, credit, market and liquidity risks are further described in the Financial Statements on pages 119 to 125.

There were no indications that Besi's risk management and control systems did not function properly in 2018. Please refer to "Internal Control and Risk Management" on pages 62 and 63 of the Corporate Governance section for further information.

Risk appetite

Besi's risk appetite is primarily based on defined and agreed upon strategies and the individual objectives and initiatives within such strategies. Management believes that Besi's risk appetite is aligned with its strategy and priorities. The Board of Management monitors the operation of its internal control and risk management system and carries out a systematic assessment of its design and effectiveness at which time it also assesses its risks, including residual risks, net of risk mitigating measures. The Board of Management discusses the effectiveness of the design and operation of the internal risk management and control system with the Audit Committee and provides input to the Supervisory Board.

Our risk appetite differs per risk type.

- *Strategic risks and risks related to the semiconductor industry:* Besi seeks to realize its strategic ambitions and priorities and is willing to accept reasonable risks to achieve such objectives.
- *Operational risks:* Besi has a variety of operating initiatives and challenges that require an appropriate level of management attention. We seek to mitigate risks that could negatively affect our realization of operating initiatives and efficiency targets while ensuring that our quality standards are unaffected in the process.
- *Financial risks:* Besi's financial strategy is focused on generating increased revenue, profit and cash flow from its business model, maintaining a strong financial position and creating long-term value for its shareholders.

- *Legal and regulatory risks:* Besi strives to be fully compliant with its Code of Conduct and all applicable national and international laws and regulations in the markets and jurisdictions in which it operates. Besi seeks to comply with all environmental and labor laws and uses its best efforts to comply with best practice standards in the jurisdictions in which Besi operates.

Besi does not rank the individual risks identified by management. We believe that all risks described herein have significant relevance and that a ranking process would negate the purpose of a comprehensive risk assessment.

Risks factors relating to Besi, its industry, its business and its shares

Strategic risks

Besi's business and results of operations may be negatively affected by general economic and financial market conditions and volatile spending patterns by its customers.

Though the semiconductor industry's business cycle can be independent of the general economy, global economic conditions may have a direct impact on demand for semiconductor devices and ultimately demand for semiconductor manufacturing equipment. Accordingly, Besi's business and financial performance is affected, both positively and negatively, by fluctuations in the macroeconomic environment. As a result, the Company's visibility as to future demand is generally limited and its ability to forecast future demand is difficult.

For example, between 2010 and 2013, sovereign debt concerns involving eurozone countries significantly adversely affected global economic conditions which, in turn, had a negative impact on demand for semiconductor devices and semiconductor manufacturing equipment. In the third quarter of 2015, Besi experienced an abrupt and rapid reduction in Q3 orders as customers digested capacity added in 2014 and the first half of 2015, along with typical downward order pressure from seasonal factors. Similarly, an abrupt decline in demand for mobile applications (in particular the cancellation of € 28 million of orders by a single IDM customer) caused second quarter 2018 orders to decline by 58% relative to the first quarter of 2018. Such order weakness continued in the second half of 2018 as customers digested capacity added in 2017, further exacerbated by the typical adverse impact of seasonality on second half orders.

Besi believes that historic volatility in capital spending by customers is likely to persist in the future. In addition, future economic downturns and/or geopolitical events could adversely affect Besi's customers and suppliers which would in turn have an impact on Besi's business and financial condition.

Besi's business includes significant operations in Europe. Disruptions to European economies could have a material adverse effect on Besi's operations, financial performance, share price and access to credit markets.

The financial markets have experienced concern as to the ability of certain European countries to finance their deficits, service debt burdens and refinance debt maturities. Global markets also have experienced concern as to the possible contagion effects of a potential default by a European sovereign issuer, its impact on economic growth in emerging markets and other developed markets and its impact on corporations' abilities to access credit and capital markets.

Besi also may face heightened risks as a result of the impending withdrawal of the United Kingdom from the European Union, commonly referred to as "Brexit". The future effects of Brexit are uncertain and will depend on any agreements the United Kingdom makes to retain access to European Union markets either during a transitional period or more permanently. Brexit could, among other outcomes, disrupt the free movement of goods, services and people between the United Kingdom and the European Union and significantly disrupt trade between the United Kingdom and the European Union. In addition, Brexit could lead to legal uncertainty and potentially divergent national laws and regulations, including tax laws and regulations, as the United Kingdom determines which European Union laws to replace or replicate.

Given the scale of its European operations and scope of its relationships with customers and counterparties, Besi's results of operations and financial condition could be materially and adversely affected by persistent disruptions in European financial markets, the attempt of a country to abandon the euro, the impact of Brexit, the effects of austerity measures on eurozone economies, the failure of a significant European financial institution, even if not an immediate counterparty to Besi, persistent weakness in the value of the euro and the potential adverse impact on global economic growth and capital markets if eurozone issues spread to other parts of the world as a result of the default of a eurozone sovereign or corporate issuer.

Besi may acquire or make investments in companies or technologies that could disrupt its ongoing business, distract its management and employees, increase its expenses and adversely affect its results of operations.

As part of its growth strategy, Besi may from time to time acquire or make investments in companies and technologies. Besi could face difficulties in integrating personnel and operations from the acquired businesses or technology and in retaining and motivating key personnel from these businesses. In addition, these acquisitions may disrupt Besi's ongoing operations, divert management resources and attention from day-to-day activities, increase its expenses and adversely affect its results of operations and the market price of its ordinary shares. In addition, these types of transactions often result in charges to earnings for items such as business unit restructuring, including charges for personnel and facility termination and the amortization of intangible assets or in-process research and

Anniversary 50 years Besi Switzerland

development expenses. Any future acquisitions or investments in companies or technologies could involve other risks, including the assumption of additional liabilities, dilutive issuances of equity securities, the utilization of its cash and the incurrence of debt.

Acts of war or terrorism could adversely affect Besi's business and results of operations.

Threats or acts of war or terrorism may adversely affect our business. Terrorist attacks in Europe and other regions globally as well as continuing hostilities in the Middle East and elsewhere have created significant instability and uncertainty in the world. In addition, terrorist attacks, including cyberterrorism, that directly impact our facilities or those of our suppliers or customers could have an adverse impact on our sales, supply chain, production capabilities and costs. Any such events could have a material adverse effect on world markets, our business and our results of operations.

Trade, political and economic frictions in the Asia Pacific region could adversely affect Besi's revenue and results of operations.

Due to the complex relationships among China, Japan, Korea, Taiwan and the United States, there is inherent risk that political and diplomatic influences might lead to trade disruptions. A significant trade disruption in any area where we do business could have a material adverse impact on our future revenue and profitability. Tariffs, additional taxes or trade barriers may increase our manufacturing costs, decrease margins, reduce the competitiveness of our products or inhibit Besi's ability to sell products or purchase necessary equipment and supplies, all of which could have a material adverse effect on our business, results of operations and financial condition.

In addition, there are risks that governments may, among other things, insist on the use of local suppliers, compel companies to partner with local companies to design and supply equipment on a local basis, require the transfer of intellectual property rights and/or local manufacturing or provide special incentives to government backed local customers to buy from local competitors even if their products are inferior to ours, all of which could adversely impact our revenue, margins and financial condition. Many of these challenges are particularly applicable in China, which is a fast-developing market for the semiconductor equipment industry and an area of anticipated growth for Besi's business. Further, the political and economic climate in China at both the national and regional levels can be fluid and unpredictable. China has announced and begun implementation of state-sponsored initiatives to build domestic semiconductor capacity and supply chains. As such, Besi may be at a disadvantage in competing with entities associated with such government efforts based on their lower cost of capital, access to government subsidies and decision making, preferential sourcing practices, stronger local relationships or otherwise.

Semiconductor industry related risks

Besi's revenue and results of operations depend in significant part on demand for semiconductors which is highly cyclical and has increasingly become more seasonal in nature.

Besi's customers' capital expenditures for semiconductor manufacturing equipment depend on the current and anticipated market demand for semiconductors and products using semiconductors. The semiconductor industry is highly cyclical and volatile and is characterized by periods of rapid growth followed by industry-wide retrenchment. These periodic downturns have included, among other things, diminished product demand, production overcapacity, over supply and reduced prices, all of which have been regularly associated with substantial reductions in capital expenditures for semiconductor facilities and equipment and a reduction of Besi's revenue.

Over the past decade, Besi has experienced significant upward and downward movements in quarterly order rates due to global macroeconomic concerns, the timing of industry capacity additions and increased seasonality of end-user application revenue which materially affected and, in certain instances, adversely affected its revenue, results of operations and orders. Customer order patterns have become increasingly more seasonal due to the growing influence of more retail oriented electronics applications in the overall demand for semiconductor devices such as smart phones, tablets, wearables and automotive electronics and the timing of new product introductions. As such, typical annual order patterns have been characterized by a strong ramp in the first half of the year to build capacity to meet anticipated year end demand followed by a subsequent decline in the second half of the year as capacity additions are digested by customers.

Due to the lead times associated with the production of semiconductor equipment, a rise or fall in the level of sales of semiconductor equipment typically lags any downturn or recovery in the semiconductor market by approximately three to six months. This cyclicality has had, and is expected to continue to have, a direct adverse effect on Besi's revenue, results of operations and orders. Industry downturns can be severe and protracted and will continue to adversely affect Besi's revenue, results of operations and orders.

Because of the lengthy and unpredictable sales cycle for its products, Besi may not succeed in closing transactions on a timely basis, if at all, which could adversely affect its revenue and operating results.

The average selling price for a material portion of Besi's equipment exceeds € 250,000, and as a result of such potential investment size, the sales cycles for these transactions are often lengthy and unpredictable. Factors affecting the sales cycle include:

- Customers' capital spending plans, capacity utilization rates, technology roadmaps and budgetary constraints.
- Timing related to the adoption, testing, qualification and introduction of new devices and process technologies and related equipment.
- The timing of customers' budget cycles.
- Customers' internal approval processes.

These lengthy sales cycles may cause Besi's revenue and results of operations to vary from period to period and it may be difficult to predict the timing and amount of any variations. Besi may not succeed in closing such large transactions on a timely basis or at all, which could cause significant variability in its revenue and results of operations for any particular period.

Recent consolidation activity in the semiconductor industry has further increased customer concentration and the risk of loss.

There has been, and Besi expects that there will continue to be, consolidation within the semiconductor industry resulting in even fewer potential customers for its products and services, and, more significantly, the potential loss of business from existing customers that are a party to a merger if the combined entity decides to purchase all of its equipment from one of Besi's competitors. Further industry consolidation could result in additional negative consequences to Besi including increased pricing pressure, increased customer demands for enhanced or new products, greater sales and promotional costs and the potential for increased oversight from regulatory agencies. Any of the foregoing events would have an adverse impact on Besi's business, results of operations and financial condition.

Industry alliances and customer consolidation may decrease the number of potential customers for our equipment.

Some of our customers and potential customers are entering into alliances or other forms of cooperation with one another to expedite the development of processes and other manufacturing technologies. One of the results of this cooperation may be the definition of a system or particular tool set for a certain function or a series of process steps that uses a specific set of manufacturing equipment. These decisions could work to Besi's disadvantage if a competitor's equipment becomes the standard equipment for such function or process. Even if Besi's equipment was previously used by a customer, that equipment may be displaced in current and future applications by the equipment standardized through such cooperation. These forms of cooperation may have a material adverse effect on Besi's business, financial condition and results of operations.

In addition, various industries have experienced consolidation and other ownership changes or the emergence of dominant firms and supply chains within those industries, including the smart phone, computing and automotive industries. Any future changes in market structure to industries in which we sell our equipment could decrease the number of potential customers for our product offerings and/or risk an increase in competition for our clients' equipment purchases. Moreover, our competitors may respond to such changes in market conditions by lowering prices and attempting to lure away our customers.

Besi may experience increased price pressure on its product sales.

Typically, Besi's average selling prices for mature products have declined over time. Besi seeks to offset this decline, in part, by continually developing and introducing next generations of its principal products. In addition, it has reduced its cost structure by consolidating and transferring production operations to lower cost areas, expanding its lower cost Asian sources of supply, reducing other operating costs and by pursuing product strategies focused on product performance and customer service. If these efforts do not fully offset any such price declines, Besi's financial condition and operating results may be materially and adversely affected.

Besi may fail to compete effectively in its markets.

Besi faces substantial competition on a worldwide basis from established companies based in Japan, Korea, Singapore, China, various other Pacific Rim countries and the United States, many of which have greater financial, engineering, manufacturing and marketing resources than Besi. Besi believes that once a semiconductor manufacturer has decided to buy semiconductor assembly equipment from a particular vendor, the manufacturer often continues to use that vendor's equipment in the future. Accordingly, it is often difficult to achieve significant sales to a particular customer once another vendor's products have been installed. Furthermore, some companies have historically developed, manufactured and installed back-end assembly equipment internally, and it may be difficult for Besi to sell its products to these companies or, in attempting to make sales to such companies, risk exposing Besi's proprietary technology to a potential competitor.

Besi's ability to compete successfully in its markets depends on a number of factors both within and outside its control including:

- Price, product quality and system performance to customer specifications.
- Ease of use and reliability of its products.
- Manufacturing lead times, including the lead times of Besi's subcontractors.
- Cost of ownership.
- Success in developing or otherwise introducing new products.
- Market and economic conditions.
- Local market presence, particularly in Asian markets, and the quality of Besi's after-market sales and service support in each region in which it operates.

If Besi fails to compete effectively based upon these or other factors, its business and results of operations could be adversely affected.

Besi must introduce new products in a timely fashion and its success is dependent upon the market acceptance of these products.

Besi's industry is subject to rapid technological change and new product introductions and enhancements. The success of Besi's business strategy and results of operations are largely based upon accurate anticipation of customer and market requirements. Besi's ability to implement its overall strategy and remain competitive will depend in part upon its ability to develop new and enhanced products and introduce them at competitive price levels in order to gain market acceptance. Besi must also accurately forecast commercial and technical trends in the semiconductor industry so that its products provide the functions required by its customers and are configured for use in their facilities. Besi may not be able to respond effectively to technological changes or to specific product announcements by competitors. As a result, the introduction of new products embodying new technologies or the emergence of new or enhanced industry standards could render Besi's existing products uncompetitive from a pricing standpoint, obsolete or unmarketable.

In addition, Besi is required to invest significant financial resources in the development of new products or upgrades to existing products and in its sales and marketing efforts before such products are made commercially available and before Besi is able to determine whether they will be accepted by the market. Revenue from such products will not be recognized until long after Besi has incurred the costs associated with designing, creating and selling such products. In addition, due to the rapid technological changes in its market, a customer may cancel or modify a product before it begins manufacture of the product and receives revenue from the customer. While Besi typically imposes a fee when its customers cancel an order, that fee may not be sufficient to offset the costs Besi incurred in designing and manufacturing such product. In addition, the customer may refuse or be unable to pay the cancellation fee Besi assesses. It is difficult to predict with any certainty the frequency with which customers will cancel or modify their projects or the effect that any cancellation or modification would have on Besi's results of operations.

Besi cannot provide any assurance that it will be successful in developing new or enhanced products in a timely manner or that any new or enhanced products that it introduces will achieve market acceptance.

Besi may not be able to protect its intellectual property rights which could make it less competitive and cause it to lose market share.

Although Besi seeks to protect its intellectual property rights through patents, trademarks, copyrights, trade secrets, confidentiality and assignment of invention agreements and other measures, there can be no assurance that it will be able to protect its technology adequately, that Besi's competitors will not be able to develop similar technology independently, that any of Besi's pending patent applications will be issued or that intellectual property laws will protect Besi's intellectual property rights. In addition, Besi operates internationally and intellectual property protection varies among the jurisdictions in which it conducts business. In certain jurisdictions, the prevention of theft or copying can be challenging. Litigation may be necessary in order to enforce Besi's patents, copyrights or other intellectual property rights, to protect its trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement. Litigation could result in substantial costs and diversion of resources, distract Besi's management from operating the business and could have a material adverse effect on its business and operating results. Due to the competitive nature of its industry, it is unlikely that Besi could increase its prices to cover such costs.

In addition, third parties may seek to challenge, invalidate or circumvent any patent issued to Besi, the rights granted under any patent issued to Besi may not provide competitive advantages and third parties may assert that Besi's products infringe patent, copyright or trade secrets of such parties. Also third parties may challenge, invalidate or circumvent technology which Besi licenses from third parties. If any party is able to successfully claim that Besi's creation or use of proprietary technology infringes upon their intellectual property rights, Besi may be forced to pay damages. In addition to any damages Besi may have to pay, a court could require Besi to stop the infringing activity or obtain a license which may not be available on terms which are favorable to Besi or may not be available at all.

Team building day Besi Singapore

Operational risks

Difficulties in forecasting demand for Besi's product lines may lead to periodic inventory shortages or surpluses.
Besi typically operates its business with limited visibility of future demand. As a result, it sometimes experiences inventory shortages or surpluses. Besi generally orders supplies and otherwise plans production based on internal forecasts for demand. Besi has in the past failed, and may fail again in the future, to accurately forecast demand for its products. This has led to, and may in the future lead to, delays in product shipments or, alternatively, an increased risk of inventory obsolescence. If it fails to accurately forecast demand for its products, Besi's business, results of operations and financial condition may be materially and adversely affected.

Besi depends on its suppliers for critical raw materials, components and subassemblies on a timely basis. If suppliers do not deliver their products on a timely basis, particularly during a large order ramp, our revenue, customer relationships and market share could be materially and adversely affected.
Besi's assembly equipment, particularly its advanced packaging product lines, is highly complex and requires raw materials, components, modules and subassemblies having a high degree of reliability, accuracy and performance. Besi relies on subcontractors to manufacture many of these components and subassemblies and in certain instances, on sole suppliers for such items, on a timely basis as our order ramps can be steep and industry cycle times are decreasing. As a result, Besi is exposed to a number of significant risks, including:

- Decreased control over the manufacturing process for components, modules and subassemblies.
- Changes in our manufacturing processes in response to changes in the market, which may delay our shipments.
- Potential for inadvertent use of defective or contaminated raw materials.
- The relatively small operations and limited manufacturing resources of some of our suppliers, which may limit their ability to manufacture and sell subassemblies, modules, components or parts in the volumes Besi requires and at acceptable quality levels, prices and timetable.
- The potential inability of suppliers to meet customer demand requirements during volatile cycles.
- Reliability or quality issues with certain key components, modules and subassemblies provided by single source suppliers as to which Besi may not have any short-term alternative.
- Shortages caused by disruptions at our suppliers and subcontractors for a variety of reasons, including work stoppage or fire, earthquake, flooding or other natural disasters.
- Delays in the delivery of raw materials, modules or subassemblies, which, in turn, may delay shipments to our customers.
- Loss of suppliers as a result of consolidation of suppliers in the industry, bankruptcy or insolvency.
- The potential copying or theft of proprietary designs for unauthorized use or sale to third parties including competitors.

If Besi were unable to deliver products to its customers on time and at expected cost for these or any other reasons, or it were unable to meet customer expectations as to cycle time, or it were unable to maintain acceptable product quality or reliability, then its business relationships, market share, financial condition and operating results could be materially and adversely affected.

Undetected problems in Besi's products could directly impair its financial results.
If flaws in design, production, assembly or testing of its products (by Besi or its suppliers) were to occur, the Company could experience a rate of failure in its products that could result in substantial repair, replacement or service costs and potential damage to its reputation. Continued improvements in manufacturing capabilities,

control of material and manufacturing quality and costs and product testing are critical factors to Besi's future growth. There can be no assurance that the Company's efforts to monitor, develop, modify and implement appropriate tests and manufacturing processes for its products will be sufficient to permit it to avoid a rate of failure in its products that results in substantial delays in shipments, significant repair or replacement costs and/or potential damage to its reputation, any of which could have a material adverse effect on Besi's business, results of operations and financial condition.

Costs of product defects and errata (deviations from product specifications) due to, for example, problems in Besi's design and manufacturing processes could include:

- Writing off the value of inventory.
- Disposing of products that cannot be fixed.
- Retrofitting products that have been shipped.
- Providing product replacements or modifications.
- Defending against litigation.

Besi's use of global and diverse information technology systems could result in ineffective or inefficient business management and could expose it to security threats to its data resources and intellectual property.

Besi currently utilizes a variety of information technology ("IT") systems to run its global operations. At present, Besi's operations rely on a range of different software systems to manage its sales, administrative and production functions. Some of these systems are proprietary and others are purchased from third party vendors. In addition, some of these systems are maintained on-site by Besi personnel while others are maintained off-site by third parties.

We maintain and rely extensively on IT systems and network infrastructures for the effective operation of our business and protection of our technological resources. We also hold large amounts of data in data center facilities around the world upon which our business depends. We could experience a disruption or failure of our systems, or the third-party hosting facilities or other services that we use. Such disruptions or failures could include a major earthquake, fire, cyber-attack, act of terrorism or other catastrophic event, as well as power outages or telecommunications infrastructure outages, or a decision by one of our third-party service providers to close facilities that we use without adequate notice or other unanticipated problems with the third-party services that we use, including a failure to meet service standards. As a highly automated business, any such disruptions or failures could (i) result in the destruction or disruption of any of our critical business operations, controls or procedures, or IT systems, (ii) severely affect our ability to conduct normal business operations, including delaying completion of sales and provision of services, (iii) result in a material weakness in our internal control over financial reporting, (iv) harm our reputation and (v) adversely affect our ability to attract and retain customers, any of which could materially adversely affect our future operating results.

Besi believes that there has been a global increase in IT security threats and higher levels of professionalism in computer crime which pose a greater risk to the confidentiality, availability, distribution and integrity of its internal data and information. Besi relies on commercially available systems, software, tools and monitoring to provide security for the processing, transmission and storage of confidential information. A disruption, infiltration or failure of our IT systems or any of our data centers could occur as a result of technological error, computer viruses, or third-party action, including intentional misconduct by computer hackers, physical break-ins, the actions of state actors, industrial espionage, fraudulent inducement of employees, or customers to disclose sensitive information such as user names or passwords, and employee or customer error or malfeasance.

A security breach could result in unauthorized access to or disclosure, modification, misuse, loss, or destruction of our or our customer's data (including proprietary design information, intellectual property, or trade secrets). Because there are many different security breach techniques and such techniques continue to evolve, we may be unable to anticipate attempted security breaches and implement adequate preventative measures. Any security breach or successful denial of service attack could result in a loss of customer confidence in the security of our products and damage to our brand, reduce the demand for our offerings, disrupt our normal business operations, compromise our competitive technological position, require us to spend material resources to investigate or correct the breach, expose us to legal liabilities, including litigation, regulatory enforcement, and indemnity obligations, and materially adversely affect our operating results.

Any significant disruption in Besi's operations could reduce the attractiveness of its products and result in a loss of customers.

The timely delivery and satisfactory performance of Besi's products are critical to its operations, reputation and ability to attract new customers and retain existing customers. Besi's administrative, design and systems manufacturing are located all over the world, including locations in the Netherlands, Malaysia, Singapore, Austria, China and Switzerland. Some of Besi's facilities are in locations that have experienced severe weather conditions, fire, natural disasters, flooding, political unrest and/or terrorist incidents. If the operations at any of its facilities were damaged or destroyed as a result of any of the foregoing, or as a result of other factors, Besi could experience interruptions in its service, delays in product deliveries and it would likely incur additional expense in arranging new production facilities which may not be available on timely or commercially reasonable terms, or at all. Any interruptions in Besi's operations or delays in delivering its products could harm its customer relationships, damage its brand and reputation, divert its employees' attention, reduce its revenue, subject it to liability and cause customers to cancel their orders, any of which could adversely affect Besi's business, financial condition and results of operations. It is unclear whether Besi's insurance policies would adequately compensate it for any losses that it would incur as the result of a production or service disruption or delay.

Besi is largely dependent upon its international operations.
Besi has manufacturing and/or sales and service facilities and personnel in the Netherlands, Austria, Malaysia, Korea, Hong Kong, Singapore, China, the Philippines, Taiwan, Switzerland and the United States. Its products are marketed, sold and serviced worldwide. In addition, 74% of its sales in 2018 were to customers outside of Europe and 71.5% of its employees were located in facilities outside of Europe at year end 2018.

Besi's operations are subject to risks inherent in international business activities including, in particular:

- General economic, banking and political conditions in each country.
- The overlap of different tax structures and potentially conflicting interpretations of tax regulations.
- Management of an organization spread over various countries.
- Currency fluctuations which could result in increased operating expenses and reduced revenue and foreign currency controls.
- Greater difficulty in accounts receivable collection and longer collection periods.
- Difficulty in enforcing or adequately protecting Besi's intellectual property in foreign jurisdictions.
- Unexpected changes in regulatory requirements, compliance with a variety of foreign laws and regulations.
- Tariffs, import and export licensing requirements, trade restrictions, restrictions on foreign investments and changes in freight rates.
- Political unrest and terrorist activities in the countries in which it operates.
- Ethical issues such as corruption, bribery and human rights violations.

Also each region in the global semiconductor equipment market exhibits unique characteristics that can cause capital equipment investment patterns to vary significantly from period to period.

Besi's Asian operations represented approximately 66% of its revenue in 2018 and 70% of its employees at year end 2018. Geographically focused disruptions or failures, such as natural disasters, acts of terrorism, geopolitical conflict or other localized catastrophic events as well as power outages or telecommunications infrastructure outages in our Asian operations could have a material adverse effect on our business and results of operations.

In addition, compliance with foreign laws and regulations that are applicable to our international operations is complex and may increase our cost of doing business in international jurisdictions, and our international operations could expose us to fines and penalties if we fail to comply with these regulations. These laws and regulations include anti-bribery laws and local laws prohibiting corrupt payments to governmental officials. Although we have implemented policies and procedures designed to help ensure compliance with these laws, there can be no assurance that our employees, partners, and other persons with whom we do business will not take actions in violation of our policies or these laws. Any violations of these laws could subject us to civil or criminal penalties, including substantial fines or prohibitions on our ability to offer our products and services to one or more countries, and could also materially damage our reputation and our brand.

Financial risks

Besi's historical financial results have fluctuated significantly and may continue to do so in the future.
Besi's quarterly revenue, orders and operating results have fluctuated significantly in the past and may continue to do so in the future. Besi believes that period to period comparisons of its operating results are not necessarily indicative of future operating results. Factors that have caused Besi's operating results to fluctuate in the past and which are likely to affect them in the future, many of which are beyond its control, include the following:

- Global macroeconomic trends and geopolitical events which may influence levels of gross domestic product, purchasing power and consumer confidence of various regions, including both developed and lesser developed countries, and may affect the willingness of our customers to invest in new production capacity.
- The number and frequency of new electronics introductions, particularly for retail applications such as mobile, computing and automotive end-user markets.
- The volatility of the semiconductor industry and its impact on semiconductor equipment suppliers.
- Industry capacity utilization, pricing and inventory levels.
- The timing of new customer device introductions and production processes which could require the addition of new assembly equipment capacity.
- The length of sales cycles and lead-times associated with Besi's product offerings.
- The timing, size and nature of Besi's transactions.
- The financial health and business prospects of Besi's customers.
- The impact on potential orders from consolidation trends among semiconductor producers.
- The proportion of semiconductor demand represented by corporate and retail end-user applications.
- Besi's ability to scale its operations on a timely basis consistent with demand for its products.
- The ability of Besi's suppliers to meet its needs for products on a timely basis.
- The success of Besi's research and development activities.
- The market acceptance of new products or product enhancements by Besi or its competitors.

- The timing of new personnel hires and the rate at which new personnel becomes productive.
- Changes in pricing policies by Besi's competitors.
- Changes in Besi's operating expenses.
- Besi's ability to adequately protect its intellectual property.
- Besi's ability to integrate any future acquisitions and any restructuring charges related thereto.
- The fluctuation of foreign currency exchange rates.

Because of these factors, investors should not rely on quarter to quarter comparisons of Besi's results of operations as an indication of future performance. In future periods, Besi's results of operations could differ from estimates of public market analysts and investors. Such discrepancies could cause the market price of its securities to decline.

Besi's orders at any particular date may not be indicative of its future operating results.

Besi's orders aggregated € 483.1 million in 2018. Orders are subject to customer cancellation at any time upon payment of a negotiated cancellation fee. During market downturns, semiconductor manufacturers historically have cancelled or deferred additional equipment purchases. Besi's bookings may also be influenced by seasonal factors which typically cause order levels to decline in the second half of the year from peak levels reached at the end of the second quarter. As a result of industry conditions and/or seasonal influences, Besi's orders declined by approximately 25%, 46% and 60%, respectively, from highest to lowest quarterly level in 2016, 2017 and 2018. Orders can also be affected by customer cancellations. For example, orders declined by 34.8% in the second quarter of 2018 versus the first quarter of 2018 primarily due to the cancellation by a single customer at quarter end of € 28 million in orders previously expected for shipment during the quarter.

Because of the possibility of changes in delivery schedules, expedited cycle times, cancellations and delays in product shipments, Besi's orders at any particular date may not be representative of actual revenue for any succeeding period. Besi's current and future dependence on a limited number of customers increases the revenue impact of each customer's delay or deferral activity.

Besi may not be able to adjust its costs and overhead levels quickly enough to offset revenue declines that it may experience in the future.

Besi's business is characterized by high fixed cost levels, including personnel, facility and general and administrative costs, as well as expenses related to the maintenance of its manufacturing equipment. Besi's expense levels in future periods will be based, in large part, on its expectations regarding future revenue sources and, as a result, its operating results for any given period in which material orders fail to occur, are delayed or deferred could vary significantly. Due to the nature of such fixed costs, Besi may not be able to reduce its fixed costs sufficiently or in a timely manner to offset any future revenue declines. Besi's inability to align revenue and expenses in a timely and sufficient manner will have an adverse impact on its gross margins and results of operations.

A limited number of customers have accounted for a significant percentage of Besi's revenue, and its future revenue could decline if it cannot maintain or replace these customer relationships.

Historically, a limited number of Besi's customers have accounted for a significant percentage of its revenue. In 2018, one customer represented 16.1% of Besi's revenue and its largest 10 customers accounted for 54.2% of revenue. Besi anticipates that its results of operations in any given period will continue to depend to a significant extent upon revenue from a relatively limited number of customers. In addition, Besi anticipates that the composition of such customers will continue to vary from year to year so that the achievement of its long-term goals will require the maintenance of relationships with Besi's existing customers and obtaining additional customers on an ongoing basis. Besi's failure to enter into and realize revenue from a sufficient number of customers during a particular period could have a significant adverse effect on Besi's revenue.

In addition, there are a limited number of customers worldwide interested in purchasing semiconductor manufacturing equipment and an even more limited number of major customers and supply chains for specific end market applications such as smart phones, tablets, wearables, laptops, computers and automotive electronics. As a result, if only a few potential customers were to experience financial difficulties or file for bankruptcy protection or if there were further customer or supply chain consolidation, the semiconductor equipment manufacturing market as a whole, and Besi's revenue and results of operations specifically, could be negatively affected.

Besi's results of operations have in the past and could in the future be affected by currency exchange rate fluctuations.

The following tables set forth Besi's revenue and costs and expenses by principal functional currency for 2018, 2017 and 2016:

			Revenue
	2018	**2017**	**2016**
Euro	33%	18%	25%
US dollar	67%	82%	74%
Other	-	-	1%
Total	**100%**	**100%**	**100%**

	2018	Costs and Expenses 2017	2016
Euro	29%	21%	26%
US dollar	9%	9%	5%
Malaysian ringgit	31%	31%	30%
Swiss franc	12%	19%	21%
Chinese yuan	10%	13%	11%
Singapore dollar	6%	5%	4%
Other	3%	2%	3%
Total	**100%**	**100%**	**100%**

Besi's principal reporting currency is the euro. In 2018, 2017 and 2016, Besi's revenue denominated in euro represented 33%, 18% and 25% of its total revenue, respectively, while its costs and expenses denominated in euro represented 29%, 21% and 26%, respectively, each year. The majority of its revenue is denominated in US dollars while in 2018, its costs were denominated in a variety of European and Asian currencies. In 2018, 60% of its costs and expenses were denominated in Malaysian ringgit and euro. The remainder of its costs were primarily represented by the Swiss franc, Chinese yuan, US dollar and Singapore dollar.

Due to its global operations and differences in the foreign currency composition of its revenue and costs and expenses, Besi's results of operations could be adversely affected by fluctuations in the values of, and the relationships between, the euro, the US dollar, Swiss franc, Malaysian ringgit, Chinese yuan and Singapore dollar. Besi seeks to manage its exposure to currency fluctuations in part by hedging firmly committed sales contracts denominated in US dollars. While management will continue to monitor its exposure to currency fluctuations and may use financial hedging instruments to minimize the effect of these fluctuations, Besi cannot assure that exchange rate fluctuations will not have a material adverse effect on its results of operations or financial condition.

Besi's principal competitors are domiciled in countries utilizing primarily US dollars and/or Japanese yen as their principal currencies for the conduct of their operations. Besi believes that a decrease in the value of the US dollar and US dollar linked currencies or Japanese yen in relation to the euro could lead to intensified price-based competition in its markets resulting in lower prices and margins and could have a negative impact on its business and results of operations.

Weaknesses in its internal controls and procedures could result in material misstatements to Besi's financial statements and/or a deterioration of its financial condition.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal controls over financial reporting are processes designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. A material weakness is a control deficiency, or combination of control deficiencies, that result in a more than remote likelihood that a material misstatement of annual or interim financial statements will not be prevented or detected. Besi's internal controls may not prevent all potential errors or fraud. Any control system, no matter how well designed and implemented, can only provide reasonable and not absolute assurance that the objectives of the control system will be achieved.

There were no indications that Besi's risk management and control systems did not function properly in either 2018 or 2017. However, there can be no assurance that situations will not arise in the future that could compromise the integrity of Besi's internal controls and systems which could affect investor confidence in Besi and the price of its ordinary shares.

Ordinary share related risks

Anti-takeover provisions could delay or prevent a change of control including a takeover attempt that might result in a premium over the market price for Besi's ordinary shares.

Besi's articles of association provide for the possible issuance of preference shares. In April 2000, Besi established the foundation "Stichting Continuïteit BE Semiconductor Industries" (the "Foundation") whose board consists of three members, two of whom are independent of Besi. Besi has granted the Foundation a call option pursuant to which the Foundation may purchase preference shares up to a maximum amount equal to the total number of outstanding ordinary shares. If the Foundation were to exercise the call option, it may result in delaying or preventing a takeover attempt including a takeover attempt that might result in a premium over the market price for Besi's ordinary shares.

We may not declare dividends at all or in any particular amount in any given year.

Besi aims to pay an annual dividend in accordance with its dividend policy and seeks to increase its annual dividend over time. On an annual basis, the Board of Management (with Supervisory Board approval) will submit a proposal for approval at the AGM with respect to the amount of dividend to be declared for the prior fiscal year. The proposal in any given year will be subject to (i) Besi's review of its annual and prospective financial performance, liquidity and financing needs, the prevailing market outlook, its strategy, market position and acquisition strategy and (ii) a target dividend payout ratio in the range of 40-100% relative to net income to be adjusted accordingly if the factors referred to under (i) so require.

Accordingly, the Board of Management may decide not to pay a dividend, or a lower dividend, with respect to any particular year in the future which could have a material adverse effect on the price of its ordinary shares.

Corporate Social Responsibility and Non-Financial Information

Charles and 'Ray' Eames

Charles Ormond Eames, Jr. (1907–1978) and Bernice Alexandra "Ray" Kaiser Eames (1912–1988) were an American design married couple who made significant historical contributions to the development of modern architecture and furniture through the work of The Eames Office. Among their most well-known designs is the Eames Lounge Chair.

Corporate Social Responsibility and Non-Financial Information

Trends and developments
Besi's business is the development and sale of semiconductor assembly equipment. For us, being a part of the Information and Communications Technology ("ICT") value chain, sustainability is motivated by global trends which affect our business, such as the further digitalization of society, climate change and the circular economy.

Besi's objective is to be a meaningful partner in the digital revolution, adding value to society through the development and sale of its systems for next generation applications in the digital economy. We also seek to further advance ICT as a means of stimulating the sharing economy and reducing material consumption with its accompanying environmental benefits. For example, the Global e-Sustainability Initiative ("GeSI") issued the GeSi SMARTer2030 report in 2015 in which it estimated that ICT has the potential to generate by 2030 a 20% reduction of global CO_2 emissions from 2015 levels and decouple economic growth rates from emissions growth rates. In addition, advancements in ICT will help promote the Internet of Everything in which smart cities, smart manufacturing, smart mobility and self-driving electric cars with artificial intelligence could lead to real breakthroughs in how society functions in a safer, more environmentally efficient manner.

Besi's products also have an important role to play in the context of climate change. Many of Besi's assembly systems are used for digital applications such as smart phones, tablets, high-end sensors, intelligent automotive electronics, autonomous cars, cloud servers, data mining, artificial intelligence and the Internet of Things ("IoT"). Through its products, Besi can therefore drive sustainability themes such as energy usage. In this area, we provide system solutions which contribute, among other things, to longer battery life for electronic devices, more efficient solar cells, lower power consumption and heat dissipation in smart phones and increased automotive electronic content and intelligence which can help foster the development of next generation electric and autonomous vehicles without fossil fuel generated combustion engines.

Another trend potentially affecting Besi's business is the circular economy. As opposed to a linear economy in which we make, use and dispose of materials, a circular economy emphasizes (i) the usage of materials for as long as possible, (ii) the extraction of their maximum value while in use and (iii) the recovery and regeneration of products and materials at the end of each service life. Besi continually looks for opportunities to extend the useful lives of its materials, facilities and products from both a business and environmental perspective.

Strategy
In light of the socio-economic trends above, Besi has expanded its corporate social responsibility ("CSR") activities in recent years with a particular focus on the impact of our products, operations and supply chain on the environment and the communities in which we operate. One of the more important strategic objectives currently is to significantly decrease our environmental footprint through reduced energy use and waste. In this regard, all of Besi's operations have a certified ISO 14001 management system in place ensuring a high level of quality and safety in the production process. In 2017, Besi completed the renewal process for its ISO 14001 certification in compliance with current standards and realized 100% conformance with ISO 14001:2015 contractor management requirements during the year.

In 2018, Besi APac (which consists of Besi's operations in Malaysia and China and accounts for substantially all of Besi's production activities) was the first business unit to be fully certified according to this updated certification standard. Following certification, Besi APac was able to evaluate the risks of many aspects of its operations in an integrated way including environmental, social and business considerations. This unit is also conducting regional sustainability-related risk analyses on topics such as corruption, electricity usage and the contracting of temporary production and other personnel in parallel with company-wide corporate risk assessments of such topics. In addition, Besi APac was externally audited in 2018 by the Responsible Business Alliance ("RBA"), an organization committed to the development of a responsible electronics supply chain worldwide. Topics addressed in the audit included relevant labor, environmental, ethical and health and safety considerations. As a result, Besi can now provide an RBA audit report to customers upon request saving the time and management effort necessary to conduct such an audit themselves.

Our stakeholders
Stakeholder engagement is at the core of our CSR strategy. Besi identifies its key stakeholders based on the nature and level of their engagement with us as well as our impact on their interests. Engagement with stakeholders helps Besi identify the opportunities, issues and risks that affect its business and performance. We gather vital intelligence through internal and external audits, supplier audits and customer dialogue, management reviews and surveys. We listen to the concerns of our stakeholders, try to be as responsive as possible in the context of our business conduct and strive to exceed stakeholder expectations whenever possible.

Shareholders are engaged through quarterly and annual conference calls, presentations, roadshows, conferences, participation at Besi's Annual General Meeting of Shareholders ("AGM") and through an active investor relations program. Shareholders expect Besi to protect their investment and provide a competitive return on invested capital while operating responsibly as a corporate citizen. Investor interest in sustainability is growing as a consideration in their investment process in both Europe and North America. Investors are also requesting more information from us than in previous years particularly in the areas of conflict minerals and climate change as well as fossil fuel and CO_2 reduction strategies.

Besi's investor relations activities ensure that we remain in close contact with investors in Europe, North America and Asia. As part of our activities, we conduct meetings on a regular basis with shareholders, research analysts and other investment professionals and encourage them to ask questions during our earnings calls, meetings and at our AGM. In this manner, we engage in important face to face dialogue with such stakeholders and receive valuable feedback about our business and CSR issues.

Customer relationships are vital to Besi's growth and its ability to improve its sustainability efforts. Providing superior customer support is central to our corporate philosophy. We have a very experienced sales and service team whose aim is to maintain close, strategic relationships with key customers as they provide valuable insight into semiconductor device roadmaps, assembly equipment requirements and future market trends. Moreover, they provide partnership opportunities to develop new assembly systems and sustainability solutions for the market. Customer satisfaction is an important measure to determine if customer needs are being fulfilled along with areas for improvement. Besi conducts annual customer satisfaction surveys to assess existing relationships and identify areas for improvement. We see an increasing number of customers paying attention to topics such as conflict minerals, labor conditions, human rights, environmental performance, innovation and compliance with the RBA Code of Conduct.

Employees expect Besi to use high social and ethical standards and to provide inspiring and safe working conditions with competitive terms and conditions. A high level of employee satisfaction is a basic precondition to achieve our revenue and profit growth. Moreover, Besi considers open and constructive labor relations as a key ingredient for success. We encourage an atmosphere of open dialogue between managers and employees and apply several ways to safeguard such a dialogue. During performance appraisal conversations, we encourage employees to raise their concerns and interests to their managers and vice versa. Employee interests are communicated in a more institutional way via Works Council representation. In Europe, we hold meetings with the Works Councils twice a year to listen to the views of employees and communities.

Suppliers expect a long-term relationship that is mutually beneficial. We engage with our suppliers through direct dialogue and constructive audits. Besi performs a third-party external audit annually for all significant production and development facilities with respect to its ISO 9001 and ISO 14001 capabilities. Social and ethical CSR topics are put on the agenda as well. But most of all, we try to work together with suppliers to lower our joint environmental footprint and create sustainable products.

Society expects Besi to respect national and international laws and regulations, minimize negative outcomes and provide transparency on economic, environmental and social issues. Besi abides by appropriate social, ethical and environmental standards for its operations which typically exceed minimum legal and regulatory compliance levels. We also engage in responsible tax practices and pay our fair share of taxation in all jurisdictions in which we have operations.

Local governments expect compliance with local laws, regulations and care for the health, safety and security of their communities. In Asian countries such as China, CSR topics such as clean technologies are being given higher priority particularly in light of serious environmental issues in local communities. In all its operations, Besi uses European social and ethical standards wherever possible and participates in dialogue with local chambers of commerce as appropriate.

Besi relies on healthy and stable local communities in the regions where it operates. We aim to have a positive impact on communities through good corporate and employee conduct and invest in several community projects, particularly in Asia. Besi senior managers review concerns raised by local communities and try to communicate issues and best practices to all stakeholders.

Materiality assessment and key themes

Besi regularly evaluates CSR topics deemed important to the conduct of our operations and the development of our corporate culture. We periodically reassess our societal and environmental impact in consideration of stakeholders' expectations. The 2015 survey resulted in a number of slight adjustments to the ranking of high and medium assessment priorities. In addition, it resulted in narrowing the focus of our CSR strategy to a more limited number of specific themes applicable to our business for which we can gradually develop programs appropriate to Besi's size, nature and culture. Each theme is addressed and monitored by a number of key performance indicators ("KPIs") to highlight any requisite actions. In 2018, we made no adjustment to the outcomes of the 2015 assessment as we still consider these themes to be the most material to our business.

For our CSR reporting, Besi aims to act in accordance with the Global Reporting Initiative Sustainability Reporting Standards. Our external auditor was not engaged to perform an audit or review of the CSR and non-financial information in this annual report. Below, we present our material themes:

Sustainable supply chain

We feel a shared responsibility for sustainability issues in our supply chain including the sourcing of raw materials and semi-finished products. We discuss and audit our suppliers on a number of sustainability issues such as conflict free minerals, human rights and child labor conditions as well as environmental issues. By dialogue and auditing, we hope to enhance sustainability throughout the entire supply chain.

Employees

We can only assure our profitability, sustainability and long-term growth if our employees are engaged and motivated in a corporate culture which encourages good working conditions and career advancement. Besi strives to be a good employer by engaging, supporting and developing its people and treating their safety and well-being as a paramount concern. The issue of human well-being deserves considerable attention especially given our increased presence in Asian countries.

Environmental impact of operations and transportation

Besi recognizes the environmental impact of its operations and aims to significantly and systematically decrease its environmental footprint through both reduced CO_2 emissions and costs. Our internal energy program encourages and helps employees make positive changes in work place energy consumption. We also focus on water usage and efficiency and a reduction of the total waste generated from our operations. We place emphasis on transportation and packaging activities where we have identified the potential for significant reductions of CO_2 emissions, waste and cost.

Ethical behavior

Besi operates with proper ethical standards in compliance with the relevant laws and regulations in its local jurisdictions. Because of growing semiconductor demand, Besi has shifted its production and supply chain network to Asia to increase efficiency, improve its local customer presence and to support local economies. As a more active Asian participant, Besi will also have more interaction with local communities and governments and may be confronted with issues of compliance and corruption. We aim to minimize these risks in our operations.

Community involvement

We contribute to the well-being of those living in the environments in which we operate and consider it an important aspect of our CSR strategy. For each of our operations, we develop tailor made activities addressing the needs and customs of the local society.

Product quality and sustainable impact

We contribute to a more efficient and cleaner industry through our products, particularly low carbon products and services. Besi continually seeks potential opportunities to develop new ways to assemble semiconductors and components used in advanced electronic applications. We invest in the development of low carbon products and services to help our customers operate more efficiently and in a more environmentally friendly and cost saving manner, for instance by introducing products with fewer and lighter materials.

Besi works closely together with its suppliers to reduce the customer's total cost of ownership by means of higher accuracy, greater throughput, smaller footprint, lower energy consumption and lead-free board usage, all of which should favorably influence a customer's usage of environmental resources.

CSR governance

Accountable to the Supervisory Board and to shareholders, Besi's Board of Management is responsible for achieving its strategy and CSR objectives. Our CSR management approach is fully aligned with Besi's hierarchical structure. Line managers are responsible for CSR issues in their respective departments. Besi has assigned independent staff officers in the fields of human resources, environment, quality and integrity at all locations to support line managers. In addition, we have implemented externally certified ISO 9001 and ISO 14001 management systems to manage quality and environmental issues in our production operations.

Health and safety has been included in our ISO 14001 management system. All of Besi's production sites have environment, health and safety ("EHS") officers and committees and a health and safety management system. These committees have representatives from each department and are responsible for inspection, enforcement and promotion of health and safety within the workplace. EHS Committee inspections are conducted quarterly to identify and address any unsafe acts and conditions that exist. Employees regularly receive EHS training. Our Malaysian operation has its own Health & Safety Committee as required by law.

CSR initiatives, progress and developments are discussed regularly between the Board of Management and the Supervisory Board and are reported in the Annual Report. We intend to introduce an internal CSR monitoring and review system with data presented to such groups twice a year in order to better monitor progress. This initiative has not yet been implemented given operational restructuring and strategic planning priorities which have required a substantial amount of senior management time and attention.

Our Remuneration Policy describes our compensation system (see "Report of the Supervisory Board" on pages 69 to 73). Several non-financial goals such as succession planning, corporate governance, organization and sustainability themes are included in the determination of variable remuneration payable to the member of the Board of Management and represent 20% of potential variable compensation. In addition, part of the variable short-term incentive compensation of the senior vice president of operations and the vice president strategic supply chain is also tied to CSR objectives such as supplier and customer compliance with RBA's standards and Code of Conduct.

CSR and non-financial risks and risk mitigation measures

Besi evaluates its CSR and non-financial risks that could affect both its strategy and business operations. Besi's CSR strategy is influenced by important global trends currently such as climate change and the circular economy as well as challenges such as diversity, human rights and the recruitment of qualified technical personnel. Short and long-term topics are assessed through measures such as materiality analysis, key performance indicators for energy, water and waste usage, customer and employee satisfaction metrics, supplier audits and continuous stakeholder dialogue.

Coastal cleanup at Bagan Lalang Beach by Besi APac employees

Besi's CSR and non-financial risks are governed by a set of guidelines and instructions regarding the following topics:

- ISO 14001 environmental management certification
- RBA Supplier Certification
- Conflict Minerals Policy
- Code of Conduct
- Supply Chain Policy
- Code of Ethics for Senior Financial Officers
- Whistleblower procedure
- Guidelines regarding authorizations
- Reporting of fraudulent activities

Set forth below is a summary of Besi's most important CSR related and non-financial risks and risk mitigation measures related thereto. For a summary of Besi's strategic, industry, operational, financial and ordinary share related risk factors, please refer to "Risks and Risk Management" on pages 32 to 40.

Recent regulations related to conflict minerals may force us to incur additional expenses, make our supply chain more complex and result in damage to Besi's customer reputation.

Both US and European regulatory authorities have issued regulations for companies that use certain minerals and metals, known as conflict minerals, in their products, regardless of whether these products are manufactured by third parties. These regulations require companies to conduct due diligence and disclose whether such minerals originate from the Democratic Republic of Congo ("DRC") and/or certain adjoining countries. The implementation of such regulations could adversely affect the sourcing, availability and pricing of minerals used in the manufacture and assembly of semiconductor devices. In addition, since Besi's supply chain is complex, verification of the origins of these materials in our products through due diligence procedures initiated by us may be difficult and costly and may not be possible at all, which may harm Besi's reputation. In such event, we may also face difficulties in satisfying customers who require that all our product components be certified as conflict-free.

Besi's Conflict Minerals Policy requires suppliers to:

- Make a commitment to eliminate conflict minerals from the DRC or one of its neighboring countries in its supply chain.
- Identify and disclose all smelters or refiners of tantalum, tin, tungsten or gold.
- Utilize smelters validated by an independent private sector audit firm.

By following such measures, we aim to mitigate the risk of conflict mineral usage in Besi's supply chain. See also pages 49 to 51 for more information on how we manage our supply chain.

Besi is subject to environmental rules and regulations in a variety of jurisdictions.

We are subject to a variety of governmental regulations related to the use, storage, discharge and disposal of chemical by-products of, and water used in, our manufacturing processes. Environmental claims or the failure to comply with any present or future regulations could result in the assessment of damages or imposition of fines against Besi, suspension of production or a cessation of operations. New regulations could require us to acquire costly equipment or to incur other significant expenses. Any failure by us to control the use or adequately restrict the discharge of hazardous substances could subject Besi to future liabilities.

Besi's ISO 14001 environmental management certification for all its operations helps us to monitor all relevant environmental laws and regulations. Further, it helps us to manage our environmental impacts and to continuously assess and improve the quality of our operations.

Our business, reputation and financial position may be harmed by unethical behavior and non-compliance with Besi's Code of Conduct.

Besi seeks to conduct its business in accordance with internationally recognized standards and best practices. We have adopted social, ethical and environmental standards for our operations that typically exceed minimum legal and regulatory compliance levels and applied European social and ethical standards wherever possible. Besi has established a Code of Conduct which governs the behavior of our employees worldwide on matters such as corruption and human rights behavior as integrity and ethical behavior are important values to the Company.

However, we might still encounter unethical behavior and breaches to our Code of Conduct due to intentional fraudulent behavior by individual employees. Issues can arise unintentionally as well from a lack of adherence to appropriate rules and regulations. Unethical behavior and misconduct could lead to fines, penalties and claims by injured parties as well as material financial loss and damage to the reputation of Besi and its stakeholders.

Besi has several risk mitigating procedures in place to prevent the risk of fraud, bribery and corruption in its operations. Systems and procedures include (i) behavioral analysis conducted by the Internal Audit department, (ii) an enhanced cost tracking system through SAP, (iii) the rotation of personnel and segregation of duties in supply chain activities such as purchasing, warehousing and logistics, (iv) an established Whistleblower procedure and (v) online training courses related to compliance with Besi's Code of Conduct. In addition, an external advisor reviews and assesses supply chain related risks associated with our Asian operations in Malaysia and China.

Our business may be harmed if we fail to attract and retain qualified personnel.

Besi's future success depends in significant part on the continued contribution of its senior executive officers and key employees including a number of specialists with advanced university qualifications in engineering, electronics, software and computing. In addition, we need to ensure that we can attract and retain other qualified management, technical, sales and support personnel for operations, particularly to help expand Asian production and technical capabilities.

Besi's business and future operating results also depend on the continuous monitoring and adjustment of our Asian production capacity given increased seasonal influences on order rates. We believe that our ability to increase the manufacturing capacity of subsidiaries has from time to time been constrained by the limited number of such skilled technical and production personnel. Competition for such personnel is intense and we may not be able to continue to attract and retain such personnel. The loss of any key executive or employee or the inability to attract and retain skilled executives and employees as needed could adversely affect our business, financial condition and results of operations.

In order to find personnel with the appropriate qualifications, backgrounds and technological leadership capabilities, we work with headhunters, especially for recruiting senior management. In addition, we provide new recruits with training and career development for a number of tasks critical to their advancement and incentive compensation plans for select middle and senior management in the form of both cash and share based compensation to promote loyalty to the firm.

Increased Asian production and personnel expansion could expose us to additional risks related to human rights issues in the region.

In recent years, we have significantly increased our production, engineering and supply chain capabilities in Asia (Malaysia, China and Singapore) to increase Besi's local presence and make our operations more efficient.

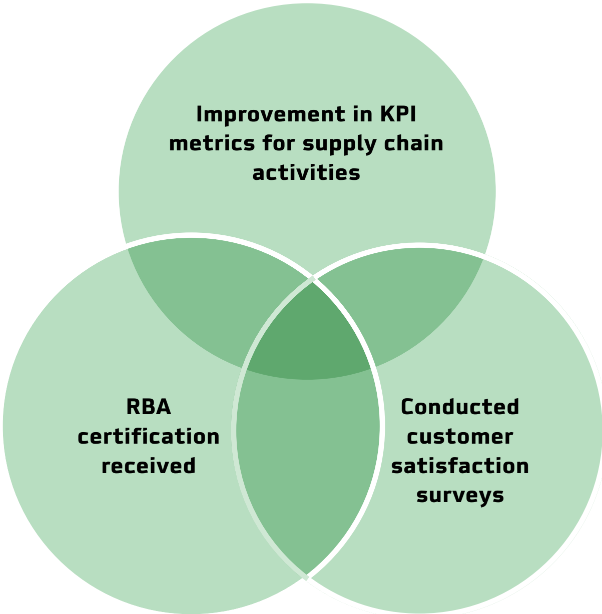
As such, Asian personnel have grown to represent 70.3% of our total headcount at year end 2018 and revenue from Asian customers represented approximately 66% of consolidated revenue. As a more active Asian participant, we may be confronted with issues of corruption and human rights violations which are significant topics in the region. In addition, our expanded operations in Asia could expose us to the risk of fraud or bribery in our supply chain activities.

In response, we have increased our surveillance, internal auditing and response capabilities relative to corruption, bribery, fraud and human rights violations in both our Asian and global operations. We engaged an external advisor starting in 2015 to assess, develop and help us implement new systems and procedures to combat potential violations which might occur at our Asian operations in the future, with a focus on procurement, warehousing and logistics activities. Our Whistleblower procedure can also aid internal efforts to monitor and identify possible areas of concern.

In terms of Besi's Asian management/labor relations, there are neither labor unions nor Works Councils in our Asian jurisdictions. However, we hold town hall meetings each quarter to inform employees of corporate developments. Moreover, Malaysian employees are represented by a member of our Health & Safety Committee. This committee monitors workplace conditions and informs employees of measures taken to ensure their health and safety. In Singapore, China, Taiwan and Korea, quarterly employee sessions are organized where the senior vice president shares information about Besi's progress.

CSR performance in 2018

CSR ACTIVITIES 2018



Quality and sustainable impact of products

Customer satisfaction

Customer satisfaction is an important measure to determine the level of customer fulfillment with Besi's products, services, technology and other forms of customer engagement. It also helps us to identify areas for improvement.

We receive ongoing feedback on a daily basis about our products and services through Besi's sales and service departments. In addition, once a year, we perform a customer satisfaction survey through which we measure our performance with customers on topics such as service and support, technological issues and quality and product management. The survey results form part of the management review per product group. The 2018 survey included 93 respondents. Overall customer satisfaction in 2018 "exceeded customer expectations" and was comparable to results of the 2017 survey with particular strength in such areas as Project Management and Commercial and Administration. Besi's Die Attach group registered the highest average customer satisfaction ratings among all Besi product groups. Relative to competitors, customers are particularly satisfied with the reliability and durability of Besi's products as well as our technical support and customer service. Besi has experienced improving customer satisfaction survey results over the past decade. Besi's target for 2019 is to realize "exceeding customer expectations" for all categories.

Sustainability impact of products

Besi contributes to a more efficient, cleaner industry through its offering of low carbon products and services. We continually seek opportunities to develop new ways to assemble semiconductors and components used in advanced electronic applications such as smart mobile internet devices, cloud servers, intelligent automotive electronics, electric and hybrid electric cars, the IoT, wearable devices, artificial intelligence, data mining, advanced medical equipment, solar and renewable energy, high-end rechargeable batteries and LED devices.

In recent years we have introduced new systems with significantly higher accuracy and throughput with fewer, lighter and non-hazardous materials as well as improved energy efficiency. Such efforts have served to reduce the customer's total cost of system ownership.

In 2016, we began an investigation into the replacement of lead used in our systems with a more environmentally friendly option. In addition, Besi revised its R&D criteria to increase our emphasis on (i) energy efficiency, (ii) the recycling potential of applied materials utilized in our operations, (iii) increasing the recycled content of our products, (iv) minimizing the usage of hazardous components in our systems and (v) the exclusion of conflict materials from our design process. In addition, Besi examined its usage of scarce materials such as virgin versus recycled content by monitoring its material streams in terms of volume and character. The investigation of all such matters continued in 2018.

Besi's products also co-exist well with the new emphasis on the circular economy. Our systems typically have a long life span of approximately 10 to 15 years, can be re-used and repurposed by customers depending on end use applications and can be upgraded via the purchase of kits, additional parts and/or software without a new system purchase. The use of upgrade kits can add more value to the customer in certain lower technology applications by extending system life versus a new purchase. Our multi module die bonding series and full line of packaging systems have commercially available upgrade kits. We continue to evaluate the introduction of system upgrade kits for other product series as well.

Product safety

Besi responsibly designs its products so that customers can use them safely at high levels of performance. We have hired an external agency that performs audits of newly developed products according to local and international regulations and standards. In addition, customers can specify additional features to further enhance product safety and usage for which audits can be performed. In 2018, Besi did not receive any customer complaints concerning product safety.

Employees and culture

Human resources strategy

Besi is committed to being a good employer and to promote a workplace culture conducive to the achievement of its business and CSR objectives. We seek to be a preferred employer by offering flexible working conditions, good training and development programs, competitive pay and attractive short and long-term incentive compensation programs for management personnel. Our human resources ("HR") strategy is based on four pillars: (i) improving HR service excellence, (ii) increasing diversity, (iii) developing leadership talents and capabilities and (iv) promoting a workplace culture that is collegial and friendly and which encourages our employees to grow and excel in their careers.

Improving HR service excellence

Besi's HR policies can vary per region due to the different work performed per facility, local circumstances and customs and government regulations. In recent years, we have actively pursued the automation and harmonization of systems and procedures of the various product groups and geographic locations through the staged adoption of a SAP enterprise software system. In this manner, we can better monitor personnel hours, engagement and utilization levels. The harmonization process is ongoing.

Increasing diversity

Besi values and encourages cultural, age and gender diversity in its workforce and management. We try to create an inclusive culture to help broaden our perspective and contribute to growth. Equal opportunities are provided to all employees and applicants as is embodied in our Code of Conduct.

Diversity was encouraged in 2018 through targeted hiring programs at Besi's Singapore and Malaysia facilities and our internship programs at our Austrian operations. In general, the available pool of female engineers in the communities in which we operate is still relatively low both in Europe and Asia. At Besi APac, the hiring program has not significantly changed the male to female ratio yet, but the subject remains high on the agenda. The aim is to increase the number of women, particularly in management positions. Moreover, the focus on equal opportunity and diversity themes has been further strengthened by the omission of personal information in the hiring process related to cultural and ethnic diversity.

In Europe, Besi is working with FemTech, a program initiated by the Austrian government, in order to attract female employees. FemTech's goal is to raise awareness and enhance the visibility of women in research and technology. In order to increase diversity, women are preferred candidates for job openings assuming similar qualifications.

A breakdown of our gender diversity figures for the past three years is provided below. In the aggregate, it shows a slight improvement on a consolidated basis in both female representation in the workforce and in management positions.

Indicator	2018	2017	2016
Female employees			
Malaysia	23%	23%	24%
China	13%	12%	12%
Singapore	30%	30%	33%
Switzerland	14%	14%	14%
Austria	9%	9%	10%
Netherlands	10%	9%	9%
Other	7%	7%	6%
Total	**17%**	**16%**	**16%**

Indicator	2018	2017	2016
Female employees in management positions			
Malaysia	29%	23%	21%
China	14%	14%	16%
Singapore	21%	17%	29%
Switzerland	7%	10%	12%
Austria	4%	4%	8%
Netherlands	11%	11%	10%
Other	4%	4%	0%
Total	**14%**	**13%**	**14%**

Training and development

One of Besi's main challenges is to attract and retain skilled workers in both its European and Asian operations. Competition is intense for qualified and experienced technical personnel with skill sets compatible with the semiconductor assembly equipment market. As such, a key component of Besi's HR strategy is training and talent development.

In this regard, Besi provides a variety of education and training programs to its employees. Currently, there are training programs targeted to promote the advancement of skill sets and leadership capabilities in the areas of research and development, sales and general management as well as the development of prospects through internships. Many training programs are offered to employees through sessions at recognized training facilities. In 2019, Besi's Singapore operations will evaluate a Team Training Program whereby all staff can be educated and trained together as to Besi's corporate goals and objectives in order to promote greater loyalty, productivity and performance. In addition, Besi's Malaysian and Chinese operations intend to roll out an e-Learning program as well as an Individual Contributor Development Program to further employee education and skill sets.

We also encourage technical knowledge exchanges amongst our employees and the development of cross functional skills by organizing training and short or long-term overseas exchange projects. In Malaysia and China, Besi offers employees an online training application program under which they can browse training programs offered and propose to managers any listed training that is deemed beneficial. In addition, local and international students have the opportunity to work at Besi as an intern. In Singapore, the development department has started a Team Technical Sharing Program both within and across individual teams whereby issues and knowledge are shared and discussed amongst staff to facilitate solutions to specific technical problems.

Besi performs semi-annual and annual employee reviews and has a performance management system with KPIs for all employees. In annual reviews, individual training needs are communicated and a program is formulated based on an employee's functional requirements and competency profiles. Training is organized and provided both at the department level and by the HR department.

In 2016, Besi implemented a talent management and succession planning program for key employees at all Besi locations worldwide whose purpose is a systematic identification, development and retention of talent. The objective is to build a talent pool of eligible candidates for successful short, mid and long-term succession planning. Attention is paid to the development of talented personnel for whom a career path and personal development plan has been created.

In Malaysia and China, a number of key staff are currently following a development program. At these Besi operations, management seeks to promote the movement of highly performing employees by providing opportunities internally for promotion either to fill vacancies within their group, to change groups or perform different functions. Approximately 13% and 18% of all job vacancies at Besi APac in 2017 and 2018, respectively, were filled internally. Moreover, a total of 20 people have moved internally to a higher job position within Besi since the beginning of this program. A talent development program is also underway in Singapore where a Skills Matrix was developed in 2018 to better determine current capabilities and define areas for improvement. In addition, identified talents have received a significant amount of both technical and interpersonal training which has resulted in the promotion of 15 people over the past two years.

Headcount development and turnover

The table below presents metrics related to Besi's headcount development between 2016 and 2018. During this period, we experienced varying headcount levels consistent with changes in assembly equipment market conditions. Employee turnover rates increased in 2017 and 2018 primarily related to the significant ramp in new employee hires to staff the expansion of our Asian operations.

Indicator	2018	2017	2016
Total headcount fixed	1,692	1,724	1,549
Employee turnover	14%	11%	9%
New employee hires	13%	20%	13%

Employee satisfaction

Engaged and satisfied employees are critical to our success. As such, Besi monitors employee satisfaction across regional operations through periodic employee surveys. In 2017, the first global employee engagement survey was conducted for which 93% of Besi employees participated. Of those who responded, 92% said they were "highly satisfied" with their jobs. The overall score was 6% above the average benchmark of high-tech companies globally participating in the survey. We scored highest in areas such as transparent communication and teamwork. Areas for improvement included better dialogue with respect to disruptions caused by Besi's rapid operational growth and restructuring activities in recent years. We are currently conducting internal workshops with management and employees to address such issues.

Health, safety and well-being

Besi monitors incidents in the workplace in all locations worldwide. Incidents are grouped into categories by severity: (i) fatalities, (ii) major absences (of more than 4 days), (iii) minor absences (of less than 4 days), and (iv) first aid (cases in which employees can resume work immediately after treatment or the following day). In general, safety hazards at Besi are limited and incidents are few as our production facilities are mostly comprised of clean room environments with no heavy chemicals present. In 2018, 4 "first aid" cases were reported. In Malaysia, Besi is working with the Malaysian government on the Systematic Occupational Health Enhancement Level Program, a program focused on improving health and safety standards in three areas: chemical management, ergonomics and noise/hearing conservation.

Besi also tracks sick leave rates to monitor employees' health status, the results from which are set forth below. In general, the table shows a relatively stable level of days lost to sickness, with improvements in European rates in recent years.

Indicator	2018	2017	2016
Sickness Rate			
Total	1.6%	1.7%	1.8%
Asia	1.4%	1.5%	1.3%
Europe	2.0%	2.0%	2.4%

In Malaysia and China, medical insurance is provided to employees although there is no formal requirement by law. In Malaysia, benefits for employees with critical illnesses are not defined by law. Consequently, Besi provides critical illness benefits to its Malaysian employees in which full salary is provided for a period ranging from two to six months. Subsequently, employees receive half salary payments for a period of time based on their years of company service. All European and American employees are provided medical coverage in accordance with local requirements. In Singapore, management is currently reviewing its group health insurance to ensure that all policies are in accordance with market norms. In addition, health screening/check ups are provided to staff to ensure employees' well being both in and outside of the workplace.

Sustainable supply chain policy

Besi adheres to high ethical standards and expects the same from its suppliers. As such, we have adopted three policies to promote a sustainable supply chain: A Conflict Minerals Policy, a Supply Chain Policy and a Supplier Code of Conduct policy based on the code set forth by the Responsible Business Alliance ("RBA"), (formerly the Electronic Industry Citizenship Coalition ("EICC")). The Code of Conduct is based on international norms and standards including the Universal Declaration of Human Rights, ILO International Labor Standards and the OECD Guidelines for Multinational Enterprises. At year end 2018, Besi's Supply Chain Policy and Code of Conduct ("CoC") were fully in accordance with RBA requirements.

Integrating sustainability in Besi's supply chain

Besi's suppliers are requested to follow the RBA CoC, particularly in such areas as human rights, product quality, health and safety and environmental matters. We also asks suppliers to have their own suppliers understand and promote the CoC with a particular focus on those suppliers which represent a large portion of our supply chain purchases. Such vendors typically supply items such as modules, components and subsystems for the equipment we assemble in our operations. For our largest suppliers, Besi's General Work Agreement ("GWA") typically includes an appendix which outlines the RBA CoC requirements and required conflict minerals due diligence. Currently, we use a General Procurement Contract ("GPC") for smaller suppliers which is presently being amended to also include the CoC and Conflict Mineral requirements. All such agreements are requested to be signed and recognized by each Besi supplier.

In addition, we ask suppliers to do a self-assessment as a means of verifying compliance with RBA requirements. In 2017, we asked 27 high and medium risk suppliers to update the supplier self-assessment questionnaire, all of which complied fully. No material issues were found upon review of the data. In 2018, we asked approximately 50 high and medium risk suppliers to update the supplier self-assessment questionnaire, of which 29 complied fully. No material issues were found upon review of the data.

Further, compliance with Besi's Conflict Minerals Policy can be fulfilled by filling and officially signing a Conflict Minerals Review Template ("CMRT") declaration (the conflict mineral due diligence agreement). As such, Besi is fully aligned with the Conflict Free Sourcing Initiative ("CFSI") as empowered by the RBA and the GeSi. Upon contract or GWA renewal, Besi asks its suppliers to fill and sign this CMRT declaration. In addition, Besi asks all suppliers between itself and the smelter to adopt its policy and take the same measures for compliance.

In its conflict minerals due diligence, Besi has focused on compliance with the requirements as defined in the Dodd Frank Act in the United States. In the near future, we will also consider requirements as defined by the EU and the China Chamber of Commerce of Metals Minerals & Chemicals Importers & Exporters ("CCCMC").

New sustainable supply chain targets

We initiated three new supply chain targets and KPIs in 2018:

1. Executed Code of Conduct self-assessment questionnaires should represent in excess of 65% of purchasing volume.
2. Signed GPC or GWA agreements should represent in excess of 70% of purchasing volume by means of converting Signed Side Letter agreement content.
3. Executed Conflict-Free Sourcing Initiative - Conflict Minerals Reporting Templates (CFSI-CMRT) should represent in excess of 65% of purchasing volume.

Code of Conduct	Target as % of purchasing volume	2018
Code of Conduct		
Code of Conduct Self-Assessment Questionnaires (SAQ)	65%	63%
Transform Signed Side Letter agreements into GPC or GWA	70%	61%
Conflict Minerals		
Conflict-Free Sourcing Initiative - Conflict Minerals Reporting Templates (CFSI-CMRT)	65%	67%

Supplier audits

Besi evaluates suppliers by means of its Quarterly Business Review process under which we regularly conduct performance reviews and audits of our key suppliers. Audits are conducted by multi-disciplinary teams from Besi's Quality and Product Development departments. These on-site audits are required to qualify new suppliers and are performed against a comprehensive set of criteria including policies for environmental management, ethics and human rights matters. New suppliers are only registered if they pass the audit. Otherwise, a new supplier must be selected. All supplier audit results become part of Besi's Business Quality Report. In 2019, we will work on incorporating RBA requirements into our supplier performance reviews.

In 2018, we conducted performance reviews of 33 suppliers in Malaysia and 7 key suppliers in China representing approximately 65% of total purchasing volume. The outcomes of these reviews showed an average score of 78.5%. We have communicated the overall performance score to all key suppliers during the annual Supplier Day in October 2018.

In addition, we scheduled and completed 47 annual supplier audits in 2018. In aggregate, all such suppliers represented approximately 60% of Besi's total purchasing volume in 2018. For 2019, we anticipate conducting 50 annual supplier audits.

Post completion of supplier audits, priority issues are established and re-audited typically one to three months post the audit to determine success. Besi collaborates with suppliers whenever possible to implement corrective actions. However, Besi may terminate a supplier relationship and look for an alternative supplier if no structural improvement is realized over a reasonable period of time. Two supplier relationships were terminated in 2018 in accordance with our Quarterly Business Review process. Besi's Malaysian and Chinese operations have launched a Quality and Reliability Campaign as part of their supply chain management activities in order to improve supplier performance in 2019 and thereafter.

Conflict minerals

The issue of conflict minerals utilization is an important supply chain topic currently, particularly in Europe and the United States. The supply chain of conflict minerals is highly complex, consisting of many tiers formed by traders and producers before the smelter is reached and even more tiers that lead to the actual mine. The term ''conflict mineral'' includes coltan (from which tantalum is derived), cassiterite (tin), gold, wolframite (tungsten), or collectively "3TG". These minerals are commonly used in the electronics industry. Profits from conflict minerals found in the DRC have supported armed conflict, human rights violations and labor and environmental abuses in the region for years. Besi is dedicated to mitigating the usage of conflict minerals in its supply chain.

In May 2017, the EU passed new regulations with the aim of providing more transparency and certainty surrounding supply chain practices of EU companies sourcing materials from conflict affected and high risk areas. The objectives of the regulations were to stop conflict minerals and metals from being exported to the EU, to stop global and EU smelters and refiners from using conflict minerals and to stop mine workers from being abused.

Besi's product specifications to suppliers specifically prohibit the usage of conflict materials. In addition, as Besi buys its feedstock from parts manufacturers, it is positioned several tiers away from the smelter and is not importing raw minerals itself. Even so, it is difficult to assess definitively whether 3TG materials have been actually used during the smelting, component or subassembly process before arrival at Besi. This is due to the variety of potential unspecified or upstream processes used by a variety of supply chain participants. Nevertheless, we are dedicated to the usage of conflict free minerals from the DRC and its neighboring countries so that responsible mining in the area is encouraged. As such, Besi's Conflict Minerals Policy requires suppliers to:

- Make a commitment to eliminate conflict minerals from the DRC or one of its neighboring countries in its supply chain.
- Identify and disclose all smelters or refiners of tantalum, tin, tungsten or gold.
- Use smelters validated by an independent private sector audit firm.

We conducted a conflict mineral due diligence exercise in recent years whose objective was to identify smelters for 3TG minerals. As a result of such investigation, Besi was able to further increase the number of approved smelters.

Local sourcing

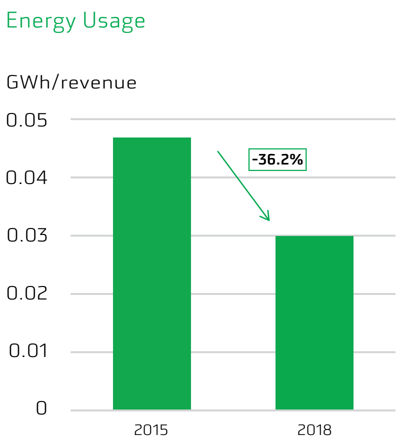
The substantial majority of Besi's supply chain has been moved to Asia consistent with its Asian production transfer and the geographic revenue mix of its customers. In this regards, we have developed local supply chain sourcing objectives as a means of (i) increasing customer proximity and potential revenue opportunities via direct shipments and shorter cycle times and (ii) reducing transportation costs and the environmental impact from the extra transportation and packaging steps involved in shipping systems back and forth from Europe to Asia prior to final customer delivery. Wherever possible, Besi intends to source as many materials, components and subassemblies as possible in the country where its production facilities are located. Moreover, local sourcing both stimulates local economies and reduces transportation costs and the environmental impact on our upstream supply chain. In 2017 and 2018, we sourced approximately 75% and 80%, respectively, of the material needs of our Asian operations from Asian vendors.

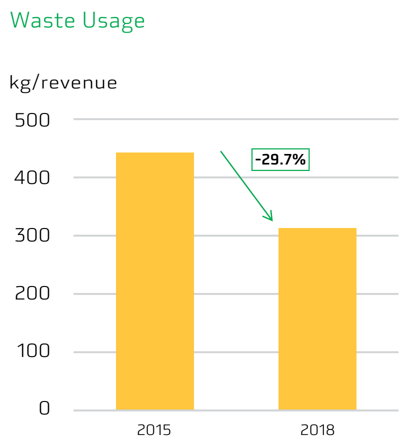
Our environmental impact

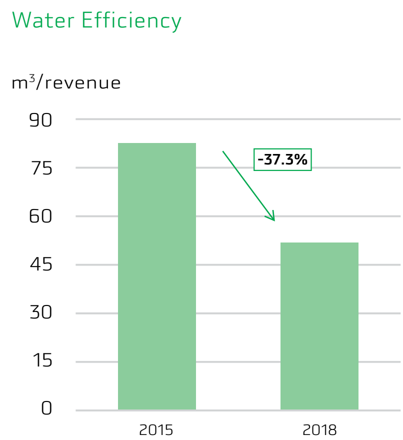
Given the nature of our products and manufacturing operations, Besi's impact on the environment is principally related to its energy and materials usage. One of our key initiatives in recent years is a reduction of relative energy usage and our resulting CO_2-footprint.

Besi's energy consumption can be detailed as follows:
(i) energy required for facilities (light, air conditioning, PCs etc.)
(ii) energy required for production processes (machines, engines, motors etc.)
(iii) energy required for transportation/logistics process

REDUCING BESI'S ENVIRONMENTAL IMPACT







We have implemented a Besi Energy Saving Program which helps employees make small changes to workplace energy consumption that can make a big difference ultimately. In 2017, the program focused primarily on the replacement of traditional fluorescent lighting with LED lighting. In 2018, the program focused primarily on using LED lighting in all existing buildings including the new capacity expansion at Besi's Leshan, China facility.

In 2017, Besi performed an energy audit at its Malaysian operations as part of a multi-year program to investigate additional potential energy savings pursuant to a grant from the Malaysian government. As a result of the audit, it was determined that the facility's air conditioning systems represented the largest potential area for improved energy efficiency. Such systems are essential to protect against corrosion and damage in Besi's production environment, particularly in Asian locations that have a high degree of heat and humidity during much of the year. The expectation is to increase energy efficiency from these systems by approximately 60-80% from current levels. In addition, the installation of such systems will enable us to digitally monitor and better track levels of CO_2-emissions.

The table below details our energy consumption both in absolute and relative terms:

Indicator	2018	2017	2016
Electricity (GWh)	13.2	15.2	12.5
Other energy use (GWh)	2.7	2.5	2.1
Total energy use (GWh)	15.9	17.7	14.6
Relative energy use*	0.030	0.030	0.039

* GWh/revenue (in euro millions).

Besi is also exploring the usage of renewable energy in its operations. To date, we have had limited success in this area as a result of factors which are out of our control in the Asian jurisdictions in which our production is predominantly located. For example, there is no renewable energy available on the market in Malaysia as it is a fossil fuel driven economy. It is possible to generate renewable energy to a maximum of 30%, for example by using solar panels, but at this moment it is technically impossible to put solar panels on the roof of our Malaysian and Chinese facilities.

Environmental impact of our transportation and logistics processes

The transportation of Besi's equipment, spare parts and assemblies has been a particular focus in terms of requisite speed, reliability, cost and environmental impact. We have implemented a number of measures to increase direct shipments and improve delivery times to our predominantly Asian installed base of customers and to reduce transportation costs and environmental impact.

First, Besi procures more goods on a local level which decreases aggregate transport costs and its associated environmental impact and results in shorter lead times for delivery to customers. Second, the transportation of heavy parts (>100 kg) is now carried out by sea freight instead of by plane even despite rapidly changing market conditions. Finally, we encourage suppliers to follow our transportation and logistics methods to both reduce related costs and minimize any adverse environmental impact. As a result, we were able to reduce freight costs as a percentage of revenue from 2.5% to 2.0% between 2015 and 2018.

Packaging and waste

Besi wants to reduce the generation of waste in its operations. We also aim to minimize the use of toxic materials like lead in our products although a good substitute has not yet been found for the purposes and specifications required in Besi's systems.

In all facilities, waste separation systems are in place and the re-use, reduce, recycle concept is communicated to employees. Our principal focus is the reduction of waste used in the packaging process. During this process, we carefully package all parts and equipment prior to transport in order to ensure quality and performance and use materials such as plastic, wood and cardboard to ensure proper protection. In order to minimize waste, packaging quality has been improved to better protect products during transport and existing packaging is re-used multiple times. Moreover, we assess on an ongoing basis the recyclability and re-use of packaging materials as well as the ability to recycle parts, components, modules and sub-assembles used in Besi's systems to further reduce waste in our operations.

At Besi APac, a "rotational" packaging system was introduced for virtually all modules and sub-assemblies in order to reduce the amount of packaging materials utilized as well as the structural re-use of packaging for the evo 2200 system (one of Besi's most significant product lines). This latter action has reduced, on a relative basis, the number of system packages used since 2015.

In addition, we recently introduced a double-use packaging system in close cooperation with our suppliers to further reduce waste in our operations. In this approach, a supplier delivers a system and the original packaging is re-used for shipment to the customer in the final assembly process. In general, inbound packaging is either returned to the supplier or re-used for product shipment to other customers (outbound packaging).
In certain instances, inbound packaging can be eliminated completely if a supplier is located close to our operations. The usage of more recycled materials in the packaging process is also being considered currently to further reduce waste from our operations. Besi also began collaboration in 2018 with a new scrap vendor in Malaysia to better ensure the proper disposal of scrap from our operations.

Indicator	Unit	2018	2017	2016
Hazardous waste	Ton	37	30	30
Non-hazardous waste	Ton	127	153	156
Total waste ton	Ton	164	183	186
Relative waste	kg/revenue*	312	310	496

* In euro millions.

As a result of our efforts, we have achieved a 37% reduction in relative waste produced between 2016 and 2018 and an absolute reduction of 12% during such period.

Water usage

At present, Besi's Chinese facility is the only one which uses water as part of its production process. There have been no material leakages or spills at this facility for at least the past five years. We have bought several new machines with better water management, recycling and filtering capabilities and a new water filtration system which enabled us in 2018 to reduce relative water consumption in our operations via increased recycling.

In addition, at each Besi facility, any water effluents are filtered and then discharged into the municipal water sewage system. Besi is also in compliance with all local requirements regulating concentrations of contamination substances.

Indicator	Unit	2018	2017	2016
Water usage	m^3	27,206	32,562	26,207
Water usage efficiency	m^3/revenue*	52	55	70

* In euro millions.

As per the table above, there has been a significant improvement in Besi's water usage efficiency between 2016 and 2018.

Ethical behaviour

Anti-corruption and bribery

The importance of appropriate anti-corruption and human rights policies and measures has increased with Besi's expansion of its Asian operations, supply chain and logistics activities. As a result, we appointed a Director of Internal Control for both Europe and Asia in 2015 who reports to the senior vice president Finance and Chairman of the Audit Committee. We also completed an internal risk assessment of anti-corruption policies and procedures in the organization. In addition, an external assessment was conducted by an independent accounting firm of policy content and implementation, the initial results of which were discussed and implemented in 2016. A second phase of this assessment focused on detailed testing of identified fraud risks which was finalized in 2017. The outcomes of this assessment were discussed by senior management in 2017 and actions taken, where appropriate, as a result of their recommendations in 2017 and 2018.

Code of Conduct

Besi has a Code of Conduct to guide the activities of all its employees which is publicly available on our website. Moreover, the Whistleblower procedure (also available online) sets out responsibilities, steps to take and support for reporting violations of the Company's Code of Conduct. Besi's Code of Ethics for Senior Financial Officers sets out further responsibilities for those employees in positions of leadership across the business. These procedures are made known to employees through the website, intranet, employee handbook and via new employee orientation. Employees can raise concerns through help lines, the HR department and management.

The Whistleblower procedure was updated in both 2017 and 2018 to meet best practice standards and published on the Company's website. In both 2017 and 2018, violations of the Code of Conduct were reported by means of the Whistleblower procedure. These incidents were promptly responded to by Besi senior management, adjudicated in a satisfactory manner and were immaterial to our financial results.

Responsible tax practices

Besi follows the principle of responsible tax practices, meaning full compliance with tax obligations in the areas where the factual economic activities of its operations take place. Besi's production and sales activities determine where taxes need to be paid.

Community involvement

Besi supports several activities in the local communities in which it operates, particularly in Asia where the support is more greatly needed. Besi also supports local technical universities in the regions in which it operates through interchange and dialogue.

Since 2014, Besi APac has supported the IDEAS Academy (Education is for ALL), a local non-profit organization which provides education to underprivileged Malaysian youth, especially refugee children. Besi APac supports the organization financially as well as through the provision of laptops.

In 2018, approximately 100 Besi APac employees joined with Coastal Clean Up, an ocean conservancy group to help clean local beaches. Altogether, they collected 185 kilograms of ocean waste from beaches in Malaysia. In addition, money was raised by employees and donated towards Sulawesi tsunami relief.

In China, we work closely together with local authorities, the Chinese government and employees to identify and make contributions of money and time to support deserving projects. In 2018, local schools in mountain villages in the Leshan region were supported financially to help improve teaching facilities and class rooms and to fund scholarships. In addition, Besi Leshan has been supporting a school for the vision and hearing impaired and is running a program for physically challenged children in conjunction with the Chinese government.

Outlook

Besi is committed to further expand and refine its CSR initiatives, management and metrics by performing continuous analysis of our sustainability policies, reporting and KPI metrics. For 2019, Besi's major CSR priorities include (i) the implementation of recommendations resulting from our ongoing risk assessment project with a particular focus on enhancements to our fraud and anti-bribery and corruption policies, particularly in Asia, (ii) further increasing compliance by our supply chain with the RBA Code of Conduct and CMRT, (iii) continuous development of initiatives in response to the employee engagement survey and (iv) improving internal reporting and monitoring of KPI compliance and target achievement on a quarterly basis.

Shareholder Information

YooJung Ahn

YooJung Ahn is responsible for giving the Google self-driving car a friendly face. Since she is not a car designer, the lack of traditional automotive experience gave her the freedom necessary to develop a self-driving car with no steering wheel or pedals.

Shareholder Information

Euronext Amsterdam listing

Besi's ordinary shares are listed on Euronext Amsterdam and are included in the Euronext AMX index. The stock symbol is BESI and the ISIN code is NL0012866412.

	2018	2017
Number of ordinary shares, net of shares held in treasury[1]	73,569,611	74,551,078
Average daily shares traded[1]	773,207	375,650
Highest closing price (in euro)[1]	44.55	36.44
Lowest closing price (in euro)[1]	15.82	15.72
Year end share price (in euro)[1]	18.48	34.96

[1] All share and per share amounts have been adjusted for the two for one stock split effected on May 4, 2018.

Nasdaq International Designation

Besi's Level 1 ADRs are traded in the OTC markets (symbol: BESIY) and have participated in the Nasdaq International program since December 2015. Investors in Besi's Level 1 ADRs can find real-time quotes, news and financial information about Besi at **www.nasdaq.com.**

Convertible Note listings

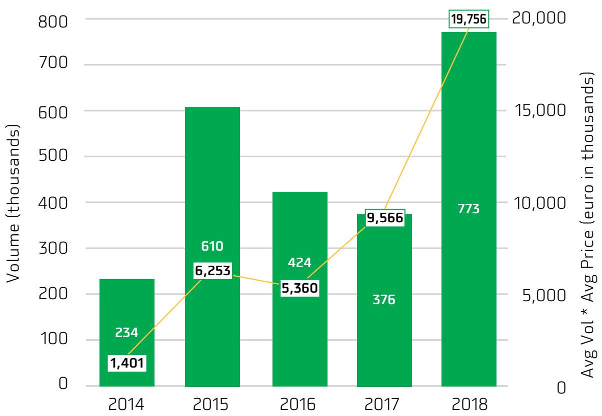
Besi has outstanding € 125 million of 2.5% Senior Unsecured Convertible Notes due 2023 (the "2016 Convertible Notes") and € 175 million of 0.5% Senior Unsecured Convertible Notes due 2024 (the "2017 Convertible Notes") both of which are listed on Deutsche Börse's Freiverkehr market (ISIN XS1529879600 and XS1731596257, respectively), **www.boerse-frankfurt.de**.

BESI MARKET INFORMATION

Symbol/ Index	• BESI • Euronext Midcap AMX
Market Cap*	• € 1.4 billion ($ 1.6 billion) • € 73.6 million shares net
Dividend Policy	• Pay out 40-100% of net income per annum

* As of December 31, 2018.

AVERAGE DAILY VOLUME & LIQUIDITY



Besi's equity structure

At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of Besi's shares whereby each issued ordinary share was split into two shares. Besi's authorized share capital now consists of 160,000,000 ordinary shares and 160,000,000 preference shares after the effectuation of this stock split on May 4, 2018. At the end of 2018, the number of issued and outstanding ordinary shares was 80,067,842 of which Besi held 6,498,231 shares in treasury.

As stated on page 56 of this Annual Report, the foundation "Stichting Continuïteit BE Semiconductor Industries" (the "Foundation") has been granted an option to acquire protective preference shares, which would, if the option were exercised, allow the Foundation to acquire a maximum of 50% of the total issued capital including the preference shares.

Issuance of ordinary shares and pre-emptive rights

Ordinary shares may be issued pursuant to a resolution of the General Meeting of Shareholders. The General Meeting of Shareholders may grant the authority to issue ordinary shares to the Board of Management for a maximum period of five years. After such designation, the Board of Management may determine the issuance of ordinary shares subject to the approval of the Supervisory Board. The foregoing applies accordingly to the granting of rights to subscribe for ordinary shares but shall not be applicable to the issuance of ordinary shares to a party exercising a previously acquired right to subscribe for ordinary shares.

Currently, the General Meeting of Shareholders has delegated its authority to the Board of Management until May 14, 2020, subject to the approval of the Supervisory Board, to issue ordinary shares and grant rights to subscribe for ordinary shares up to a maximum of 10% of Besi's issued share capital as of April 26, 2018.

Holders of ordinary shares have a pro-rata pre-emptive right in relation to any ordinary shares issued, which right may be limited or excluded. Such shareholders have no pro-rata pre-emptive right with respect to (i) any ordinary shares issued against contributions other than in cash, (ii) any issuance of preference shares, or (iii) any ordinary shares issued to employees. The foregoing applies accordingly to the granting of rights to subscribe for ordinary shares but shall not be applicable to the issuance of ordinary shares to a party exercising a previously acquired right to subscribe for ordinary shares. On the basis of a designation by the General Meeting of Shareholders, the Board of Management has the power, subject to the approval of the Supervisory Board, to limit or exclude the pre-emptive right in relation to any ordinary shares issued and rights to subscribe for ordinary shares granted until May 14, 2020, subject to the 10% maximum as described above. The designation may be renewed for a maximum period of five years. In the absence of such designation, the General Meeting of Shareholders has the power to limit or exclude such pre-emptive rights.

Issuance of preference shares

The provisions in Besi's articles of association for the issuance of preference shares are similar to the provisions for the issuance of ordinary shares described herein. However, an issuance of preference shares will require prior approval of the General Meeting of Shareholders if it would result in an outstanding amount of preference shares exceeding 100% of the outstanding amount of ordinary shares and the issuance is effected pursuant to a resolution of a corporate body other than the General Meeting of Shareholders, such as the Board of Management. Furthermore, within two years after the first issuance of such preference shares, a General Meeting of Shareholders will be held to determine the repurchase or cancellation of the preference shares. If no resolution to repurchase or cancel the preference shares is adopted, another General Meeting of Shareholders with the same agenda must be convened and held within two years after the previous meeting and this meeting will be repeated until no preference shares are outstanding. This procedure does not apply to preference shares that have been issued pursuant to a resolution by the General Meeting of Shareholders.

In connection with the issuance of preference shares, it may be stipulated that an amount not exceeding 75% of the nominal amount ordinarily payable upon issuance of shares may be paid only if the Company requests payment.

The Foundation

Under the terms of an agreement entered into in April 2002 between the Company and the Foundation, the Foundation has been granted a call option, pursuant to which it may purchase a number of preference shares up to a maximum of the total number of outstanding ordinary shares at the time of exercise of the option minus one. This call option agreement was revised in May 2008 to comply with applicable laws. The purpose of the Foundation is to safeguard the Company's interests, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, among other things, the Company's continuity, independence and identity. Until the call option is exercised by the Foundation, it can be revoked by the Company, with immediate effect. The aim of the preference shares is, amongst other things, to provide a protective measure against unfriendly take-over bids and other possible influences that could threaten the Company's continuity, independence and identity, including, but not limited to, a proposed resolution to dismiss the Supervisory Board or the Board of Management.

The Foundation was established in April 2000. The board of the Foundation currently consists of three members, two of whom are independent of Besi and one of whom is a member of the Supervisory Board. Please refer to the chapter "Other Information" for additional information on the Foundation and its board members.

Voting rights

Each share (whether ordinary share or preference share) carries the right to cast one vote. Resolutions by the General Meeting of Shareholders require the approval of an absolute majority of votes validly cast, unless otherwise required by Dutch law or Besi's articles of association.

Repurchase and cancellation of shares

The Board of Management may cause the Company to repurchase for consideration any class of shares in its own capital which have been paid-up, subject to certain provisions of Dutch law and Besi's articles of association, if (i) the shareholders' equity less the payment required to make the acquisition does not fall below the sum of the paid-up and called part of the issued share capital and any reserves required to be maintained by Dutch law or Besi's articles of association and (ii) the Company and its subsidiaries would thereafter not hold shares with an aggregate nominal value exceeding 50% of the Company's issued share capital. Shares held by the Company or any of its subsidiaries will have no voting rights and the Company may not receive dividends on shares it holds in its own capital. Any such repurchases may only take place if the General Meeting of Shareholders has granted the Board of Management the authority to effect such repurchases, which authorization may apply for a maximum period of 18 months. The Board of Management is currently authorized to repurchase up to 10% of Besi's issued share capital as at the time of such repurchase through October 26, 2019.

Upon a proposal of the Board of Management and approval of the Supervisory Board, the General Meeting of Shareholders has the power to decide to cancel shares acquired by the Company or to reduce the nominal value of the ordinary shares. Any such proposal is subject to the relevant provisions of Dutch law and Besi's articles of association.

Change of control provisions in significant agreements

Each of Besi's 2016 and 2017 Convertible Notes contain change of control provisions under which in the event of a change of control of Besi (as defined), each noteholder will have the right to require Besi to redeem all (but not less than all) of its Convertible Notes at 100% of their principal amount together with accrued and unpaid interest thereon. At December 31, 2018, there was no change of control provision contained in any other of Besi's material agreements.

Dividend policy

Besi considers the payment of dividends on an annual basis based upon (i) a review of its annual and prospective financial performance, liquidity and financing needs, the prevailing market outlook and Besi's strategy, market position and acquisition strategy and/or (ii) a dividend payout ratio in the range of 40-100% relative to net income to be adjusted if the factors referred to under (i) so require.

Due to Besi's earnings and cash flow generation in 2017, the Board of Management proposed and Besi paid a dividend to shareholders in cash equal to € 2.32 per share (€ 4.64 prior to the two for one stock split in May 2018), which resulted in cash payments to shareholders of € 174.0 million.

Due to Besi's earnings and cash flow generation in 2018, the Board of Management has proposed a cash dividend of € 1.67 per share for 2018, for approval at Besi's Annual General Meeting of Shareholders on April 26, 2019.

The payments for the year 2017 and proposed for the year 2018 represent a dividend payout ratio relative to net income of 100% and 91%, respectively.

Ownership interests in the ordinary shares

Under the Dutch Financial Supervision Act (*Wet op het financieel toezicht*, "Wft"), the following parties have notified the Dutch Authority for the Financial Markets (*Autoriteit Financiële Markten*, "AFM") of their share interests in the Company equal to or exceeding 3%:

BE Semiconductor Industries N.V.	
Notification effective August 16, 2011	5.12%
Kempen Capital Management N.V.	
Notification effective October 25, 2018	5.10%
Teslin Participaties Coöperatief U.A.	
Notification effective July 6, 2017	5.00%
Norges Bank	
Notification effective August 9, 2018	4.15%
Goldman Sachs Group, Inc.	
Notification effective December 19, 2018	4.03%
Lucerne Capital Management GP, LLC	
Notification effective August 10, 2018	3.19%
BlackRock, Inc.	
Notification effective December 14, 2018	3.00%

A list of ownership interests in the Company of 3% or more can be found on the AFM website: **www.afm.nl**.

Analysts

The following sell side analysts cover Besi's shares:

Arete Research	Martin Alipiev
Berenberg	Trion Reid
Bryan, Garnier & Co.	Frédéric Yoboué
Degroof Petercam	Michael Roeg
Deutsche Bank	Rob Sanders
ING	Marc Hesselink
Insinger Gilissen	Jos Versteeg
Kempen	Nigel van Putten
Kepler Cheuvreux	Peter Olofsen
NIBC	Edwin de Jong

Investor relations

Besi uses a range of activities to initiate and maintain contact with investors. After publication of its annual and quarterly results, roadshows are held in Europe and the United States to meet existing and potential new institutional investors. Planned roadshows and presentations can be found on the Besi website. Contacts with institutional investors are further maintained by means of conference calls, conferences organized by brokers and Euronext and by investor visits to Besi.

The Company has increased its investor outreach in recent years. During 2018, a total of 321 meetings with institutional and retail investors, research analysts, private investors, journalists and media outlets were held including roadshows, conference calls and broker conferences to help further communicate the Besi story to the investment community and general public.

Investor interest in corporate social responsibility ("CSR") matters is growing as a consideration. Investors in Europe and North America are increasingly considering CSR as part of their investment process. Investors request more CSR information from us than in previous years particularly in the areas of conflict minerals and climate change as well as fossil fuel and CO_2 reduction strategies. Besi has engaged in important face to face dialogue with such stakeholders and received valuable feedback about its business and CSR issues in its 2018 investor relations program.

Important investor relations dates in 2019 that are currently planned (subject to change) are as follows:

April 26, 2019	2019 first quarter results
April 26, 2019	Annual General Meeting of Shareholders, to be held at Besi in Duiven at 09.30 a.m.
July 25, 2019	2019 second quarter results
October 24, 2019	2019 third quarter results
February 2020	2019 fourth quarter and annual results

Prevention insider trading

Besi has implemented a Code of Conduct to prevent the use of inside information by the members of the Supervisory Board, the member of the Board of Management and any other designated persons who may have access to price-sensitive information, including key staff members. In addition, there is a separate Code of Conduct governing the use of inside information by Besi employees generally. Designated persons have agreed in writing to observe the relevant Code of Conduct concerning the reporting and regulation of transactions in Besi securities (and other designated securities) and the treatment of price-sensitive information. Besi has appointed a compliance officer who is responsible for monitoring compliance with the codes of conduct and communication with the AFM.

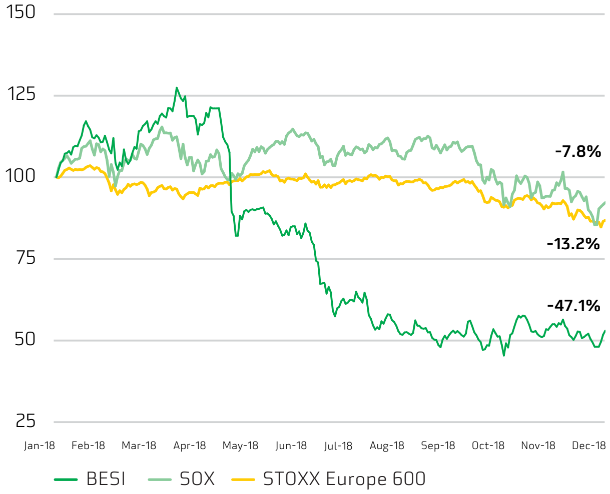
Besi Incentive Plan

Besi may grant performance shares on an annual conditional basis to the member of the Board of Management, executive employees and officers under the current Besi Incentive Plan. Further information on this subject is given on pages 69 to 75 of this Annual Report.

Besi Share Price Development

BESI'S SHARE PRICE VS. SOX INDEX AND STOXX EUROPE 600 INDEX

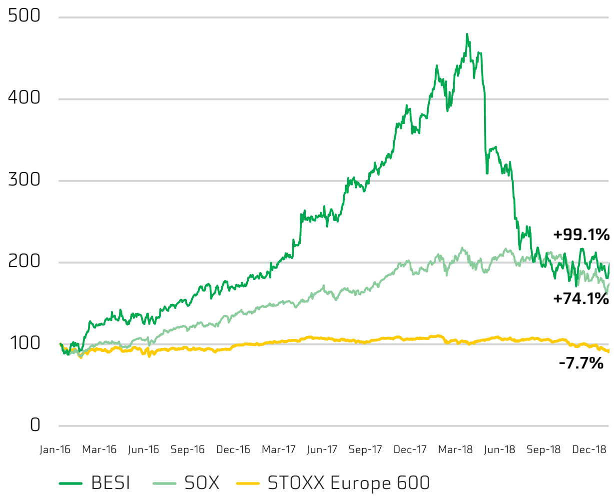
(Since January 1, 2018 until December 31, 2018; rebased to 100)



Source: Capital iQ

BESI'S SHARE PRICE VS. SOX INDEX AND STOXX EUROPE 600 INDEX

(Since January 1, 2016 until December 31, 2018; rebased to 100)



Source: Capital iQ

Corporate Governance

Gerard Unger (1942-2018)

Gerard Unger was a Dutch graphic and type designer. He developed many typefaces over the years, of which several specially developed for newspapers (usually typefaces with a large x-height and large inner counters), such as Swift, Gulliver, Coranto and Vesta. He also developed designs for magazines, coins, books, logos and stamps.

Corporate Governance

Besi acknowledges the importance of good corporate governance, the most important elements of which are transparency, independence and accountability. Important corporate governance developments in applicable jurisdictions are followed closely and rules are implemented where appropriate.

Besi's ordinary shares are listed on Euronext Amsterdam. Accordingly, Besi complies with all applicable listing rules of Euronext Amsterdam.

In 2018, Besi applied the Dutch Corporate Governance Code as revised in 2016. Deviations from the Dutch Corporate Governance Code are explained below under "Explanation of Deviations from the Dutch Corporate Governance Code". The Dutch Corporate Governance Code can be found at **www.mccg.nl**.

Board of Management

The role of the Board of Management is to manage the Company and its affiliated enterprises and ensure their continuity, which includes, among other things, (i) the formulation of its long-term value creation strategy, (ii) the identification, analysis and management of the risks associated with the Company's strategy and activities and (iii) establishing Besi's risk appetite and any measures implemented to counter any risks being taken.

In discharging its role, the member of the Board of Management shall be guided by the interests of the Company and its affiliated enterprises as well as the interests of the Company's shareholders and other stakeholders. Members of the Board of Management are required to put the interests of the Company ahead of their own interests and to act critically and independently when carrying out their responsibilities. The Board of Management is also charged with establishing and maintaining internal procedures which ensure that all relevant information is provided to the Board of Management and Supervisory Board in a timely manner.

The Company's articles of association provide that certain resolutions of the Board of Management require prior approval of the Supervisory Board. Pursuant to Dutch law and the Company's articles of association, decisions of the Board of Management involving a major change in the Company's identity or character are subject to the approval of the General Meeting of Shareholders.

Appointment and replacement of members of the Board of Management

Members of the Board of Management are appointed by the General Meeting of Shareholders. A resolution of the General Meeting of Shareholders to appoint a member of the Board of Management requires an absolute majority of the votes validly cast in the event and to the extent the appointment occurs pursuant to, and in accordance with, a proposal of the Supervisory Board. Such resolution requires at least two thirds of the votes validly cast representing more than one third of the issued capital in the event and to the extent the appointment does not occur pursuant to a proposal thereto of the Supervisory Board.

Members of the Board of Management may at any time be suspended or dismissed by the General Meeting of Shareholders. A resolution for suspension or dismissal of a member of the Board of Management requires an absolute majority of the votes validly cast in the event and to the extent that the suspension or dismissal occurs pursuant to, and in accordance with, a proposal of the Supervisory Board. A resolution for suspension or dismissal requires at least two thirds of the votes validly cast representing more than one third of the issued capital in the event and to the extent that the suspension or dismissal does not occur pursuant to, and in accordance with, a proposal thereto of the Supervisory Board. Members of the Board of Management may also be suspended by the Supervisory Board.

Remuneration report

The Remuneration Report is included in the Report of the Supervisory Board on pages 69 to 75.

Conflicts of interest – members of the Board of Management

Any appearance of a conflict of interest between the Company and members of the Board of Management should be prevented. If a member of the Board of Management has a direct or indirect personal conflict of interest with the Company, he or she shall not participate in the deliberations and the decision-making process of the Board of Management for such matter. If, as a result thereof, no resolution of the Board of Management can be adopted, the resolution may be adopted by the Supervisory Board. No conflict of interest of material significance to Besi and/or the member of the Board of Management was reported in 2018.

Supervisory Board

The role of the Supervisory Board is to supervise the policies executed by the Board of Management and the general affairs of the Company and its affiliated enterprises and to assist the Board of Management by providing advice. In discharging their role, Supervisory Board members are guided by the best interests of Besi and its affiliated enterprises as well as the relevant interests of Besi's stakeholders. Supervisory Board members are also required to put the best interests of Besi ahead of their own interests and to act critically and independently vis-a-vis one another, the Board of Management and any particular third party interests involved. Further, the Supervisory Board also has due regard for corporate social responsibility issues that are relevant to Besi. The Supervisory Board annually evaluates its own functioning.

Each member of the Supervisory Board is currently considered independent within the meaning of best practices provision 2.1.8 of the Dutch Corporate Governance Code.

Each Supervisory Board member has the specific expertise required for the fulfilment of his/her duties. The composition of the Supervisory Board shall be such that the requisite expertise, background, competencies and independence are present for them to carry out their duties properly. The Supervisory Board shall aim for a diverse composition with respect to experience, background, competencies, education, nationality, age and gender. A Supervisory Board member shall be reappointed only after careful consideration. The profile criteria referred to above shall also be taken into account in the event of a reappointment.

Regulations governing the Supervisory Board ("Regulations Supervisory Board") are posted on Besi's website: **www.besi.com**.

Appointment and replacement of members of the Supervisory Board

Members of the Supervisory Board are appointed with due observance of the requisite profile for its size and composition as adopted by the Supervisory Board from time to time, subject to the provisions of Dutch law and Besi's articles of association.

Members of the Supervisory Board are appointed by the General Meeting of Shareholders. A resolution for appointment requires an absolute majority of the votes validly cast in the event and to the extent the appointment occurs pursuant to, and in accordance with, a proposal of the Supervisory Board. Such resolution requires at least two thirds of the votes validly cast representing more than one third of the issued capital in the event and to the extent that the appointment does not occur pursuant to a proposal thereto of the Supervisory Board.

Members of the Supervisory Board may be suspended or dismissed by the General Meeting of Shareholders at all times. A resolution for suspension or dismissal requires an absolute majority of the votes validly cast in the event and to the extent the suspension or dismissal occurs pursuant to, and in accordance with, a proposal of the Supervisory Board. A resolution for suspension or dismissal requires at least two thirds of the votes validly cast representing more than one third of the issued capital in the event and to the extent the suspension or dismissal does not occur pursuant to a proposal thereto of the Supervisory Board.

Supervisory Board committees

The Supervisory Board has two committees: the Audit Committee and the Remuneration and Nomination Committee. The function of the committees is to prepare and facilitate the decision-making of the Supervisory Board. The terms of reference of the committees are posted on Besi's website: **www.besi.com**.

Remuneration Supervisory Board

The General Meeting of Shareholders shall determine the remuneration of Supervisory Board members. The Notes to the Financial Statements on page 117 contain the information prescribed by applicable law on the level and structure of the remuneration of individual Supervisory Board members. The remuneration of the members of the Supervisory Board does not depend on the results of the Company. In addition, Besi does not grant Supervisory Board members any personal loans, guarantees or the like. Further, none of the members of the Supervisory Board personally maintains a business relationship with Besi other than as a member of the Supervisory Board. At December 31, 2018, one member of the Supervisory Board owned in total 49,220 shares of the Company.

Conflicts of interest – members of the Supervisory Board

Any appearance of a conflict of interest between the Company and Supervisory Board members should be prevented. If a member of the Supervisory Board has a direct or indirect personal conflict of interest with the Company, he or she shall not participate in the deliberations and the decision-making process of the Supervisory Board for such matter. The Supervisory Board is responsible for resolving conflicts of interest regarding members of the Board of Management, members of the Supervisory Board and majority shareholders. If all members of the Supervisory Board are conflicted, then the Supervisory Board shall remain authorized to adopt resolutions. No conflicts of interest of material significance to Besi and/or the members of the Supervisory Board were reported in 2018.

Diversity

The Supervisory Board currently has a diverse composition in terms of experience, background, competencies, education and nationality and is aligned with the objectives of its diversity policy and Supervisory Board profile. Although gender and age diversity were enhanced by the appointment of Ms ElNaggar as a Supervisory Board member in 2012 and her reappointment in 2016, the Supervisory Board's current gender composition of an 80/20 male/female ratio is not in compliance with Dutch law. Article 2:166 of the Dutch Civil Code *(Burgerlijk Wetboek)* requires that at least 30% of the members of the Supervisory Board be female and that at least 30% be male. Diversity in general, and gender in particular, are important factors in the selection process of Supervisory Board candidates. When considering new candidates, the Supervisory Board will retain an active and open attitude with respect to the selection of female candidates. Gender is, however, only one factor of diversity. The qualifications of a particular person and the requirements for the position shall always prevail over all other factors and considerations when filling a vacancy.

At present, the composition of the Board of Management consists of one person whom is Besi's Chief Executive Officer and Chairman of the Board of Management. As such, there is currently no diversity policy or target for the Board of Management.

Director's and Officer's insurance policy

Members of the Board of Management, the Supervisory Board and certain senior management members are covered under Besi's Directors and Officers insurance policy. Although the insurance policy provides for broad coverage, directors and certain senior management members may be subject to uninsured liabilities. Besi has agreed to indemnify members of the Board of Management and the Supervisory Board and certain senior management members against certain claims brought against them in connection with their position with the Company provided that such individual acted in good faith and in a manner reasonably believed to be in or not opposed to the best interests of Besi and, with respect to any criminal action or proceedings, such individual had no reasonable cause to believe his conduct was unlawful.

Shareholders and the General Meeting of Shareholders

Good corporate governance requires the full participation of shareholders. It is in the interest of the Company that as many shareholders as possible participate in Besi's decision-making at the Annual General Meeting of Shareholders or any Extraordinary General Meeting of Shareholders. Pursuant to applicable law, any decisions of the Board of Management on a major change in the identity or character of the Company or its enterprise shall be subject to the approval of the General Meeting of Shareholders.

The Board of Management provides shareholders and other parties in the financial markets with equal and simultaneous information about matters that may influence Besi's share price. Contacts between the Board of Management on the one hand and the press, analysts and shareholders on the other hand should be handled and structured carefully, and Besi should do nothing which might compromise the independence of analysts in relation to the Company and vice versa.

The Board of Management and the Supervisory Board shall provide the General Meeting of Shareholders with the information that it requires for the exercise of its powers subject to such limitations allowable under applicable law. If price-sensitive information is provided during a General Meeting of Shareholders or if a response to shareholders' questions has resulted in the disclosure of price-sensitive information, then such information will be made public without delay.

Good corporate governance requires significant attendance by shareholders at Besi's General Meeting of Shareholders. Therefore, Besi is actively involved in proxy solicitation as a means of increasing the attendance and participation of its shareholders at its General Meeting of Shareholders.

Amendment of Besi's articles of association

Besi's articles of association may be amended by a resolution of the General Meeting of Shareholders. A resolution of the General Meeting of Shareholders to amend the articles of association may only be adopted at the proposal of the Board of Management, which proposal requires the approval of the Supervisory Board.

Those who have convened a General Meeting of Shareholders at which a proposal to amend the articles of association will be brought up for discussion must deposit simultaneously with the convocation a copy of the proposal in which the proposed amendment has been included at Besi's office for inspection by every person entitled to attend the General Meeting of Shareholders until the end of the relevant meeting. The persons entitled to attend meetings must be given the opportunity to obtain a copy of the proposal free of charge. The proposal will also be published on Besi's website: **www.besi.com**.

External audit

The Board of Management is primarily responsible for the quality and completeness of publicly disclosed financial reports. The Supervisory Board oversees the Board of Management as it fulfills this responsibility.

The General Meeting of Shareholders appoints the external auditor. The Supervisory Board submits a nomination for the appointment of the external auditor to the General Meeting of Shareholders upon the advice of the Audit Committee and the Board of Management. It negotiates the terms of engagement of the external auditor, including their remuneration, upon the proposal of the Audit Committee and after consultation with the Board of Management. The Chairman of the Audit Committee acts as the principal contact for the external auditor if, during the performance of its duties, it discovers or suspects an instance of misconduct or any irregularity. The external auditor attends the meeting of the Supervisory Board, at which the report of the external auditor is discussed, and discusses the findings and outcomes of the audit work and the management letter with the Audit Committee and the Board of Management simultaneously.

Internal control and risk management

Besi has an internal control and risk management system that is suitable for the Company. The form and structure of this system is outlined under "Risks and Risk Management" on page 31 of this Annual Report.

The Company's internal control and risk management function operates under the responsibility of the Board of Management which is monitored on an ongoing basis. The Board of Management reviews the effectiveness of the design and operation of the internal control and risk management system twice a year as part of Besi's internal control procedures.

Besi's internal control system consists of a formal framework defining key risks and key controls over financial reporting, an internal control charter outlining audit systems and procedures as well as the internal control and audit plan for the year. Operational, IT, compliance, tax and fraud controls are also included in this framework. The internal control system over financial reporting also contains clear accounting rules, has been implemented in substantially all operations and material subsidiaries and supports common accounting and regular financial reporting in standard forms.

Team building day Besi Leshan, China

Besi's finance staff carried out all internal control activities and reported its findings to the Board of Management and the Audit Committee in 2018. In view of increased business and risk management activities in Malaysia, Singapore and specifically China, Besi hired an independent accounting firm to help identify and monitor potential risks of fraud, bribery and corruption in its Asian supply chain, logistics and purchasing activities. In addition, it has enhanced its global internal audit function in 2017 as well as systems and procedures in such areas.

In consideration of the above factors, the Board of Management states that for the year ended December 31, 2018:

- This Annual Report provides sufficient insights into any failings in the effectiveness of Besi's internal risk management and control systems.
- Besi's internal risk management and control systems provide reasonable assurances that the financial reporting contains no material inaccuracies.
- It is justified that Besi's financial reporting is prepared on a going concern basis considering the current state of affairs.
- This Annual Report refers to those material risks and uncertainties which are relevant to Besi's continuity for the twelve months following the preparation of this Annual Report.

Explanation of deviations from the Dutch Corporate Governance Code

Deviations from the Dutch Corporate Governance Code are listed and explained below.

Provision 1.3.1

Since the internal audit function is the responsibility of the Board of Management, the appointment and dismissal of the senior internal auditor by the Board of Management is not submitted for approval to the Supervisory Board. Instead, the Supervisory Board oversees the appointment and dismissal of the senior internal auditor.

Provision 1.4.2

The sensitivity of the Company's results to material changes in external factors is not provided for competitive reasons. For a detailed description of material risks, reference is made to "Risks and Risk Management".

Provision 2.2.1

The Company respects the rights of the member of the Board of Management who was a member at the time of the first implementation of the Dutch Corporate Governance Code. For that reason, there was no adjustment of his employment agreement.

Provision 2.2.2

Mr De Waard (1946) was first appointed as a Supervisory Board member in 2000 and has served for a period of more than twelve years. Pursuant to best practice provision 2.2.2 of the Dutch Corporate Governance Code, a member of the Supervisory Board may only serve for a maximum period of twelve years, consisting of two periods of four years and two periods of two years. However, the Company and the Supervisory Board are of the opinion that in the reappointment of Mr De Waard for a new term in 2016, a deviation from the Code was justified because it was in the best interest of the Company. Since 2009, Mr De Waard has established as Chairman a well balanced and highly functioning Supervisory Board. Furthermore, Mr De Waard has extensive experience with Supervisory Boards, having served on the boards of Besi and many other publicly listed technology companies and therefore understands

Validated Assessment Program audit for Responsible Business Association, Besi APac

Besi's industry and the Company. As a well-known legal professional, he also provides expert legal knowledge of specific Dutch and international corporate governance codes to the Company.

Provision 2.3.2
In order to simplify and enhance the efficiency of Besi's governance structure, the Supervisory Board decided to reduce the number of Committees to two: the Audit Committee and the Remuneration and Nomination Committee.

Provision 3.1.2
Based on Besi's Remuneration Policy the Supervisory Board upon recommendation of its Remuneration and Nomination Committee may award conditional performance shares that vest after three years. The shares vested are subject to a two-year lock up period provided, however, the member of the Board of Management will be allowed to sell sufficient shares to cover income tax liability upon vesting of the performance shares. In accordance with the Remuneration Policy the Supervisory Board may award additional performance shares to the Board of Management which may vest immediately, but may be subject to additional terms and conditions as determined by the Supervisory Board.

Provision 3.2.3
The Company respects the rights of the member of the Board of Management who was a member at the time the Dutch Corporate Governance Code came into force. For that reason, it did not adjust his employment agreement as it was signed prior to that date.

Provision 4.2.3
The Company acknowledges the importance of disclosing material information to all shareholders similarly at the same moment in time. It is currently not practically possible to make every meeting and presentation to analysts and investors accessible to all shareholders. As far as practicably possible, meetings and presentations will be announced and posted on Besi's website: **www.besi.com**.

Director's Statement of Responsibilities
In accordance with statutory provisions, the Board of Management states, to the best of its knowledge that:

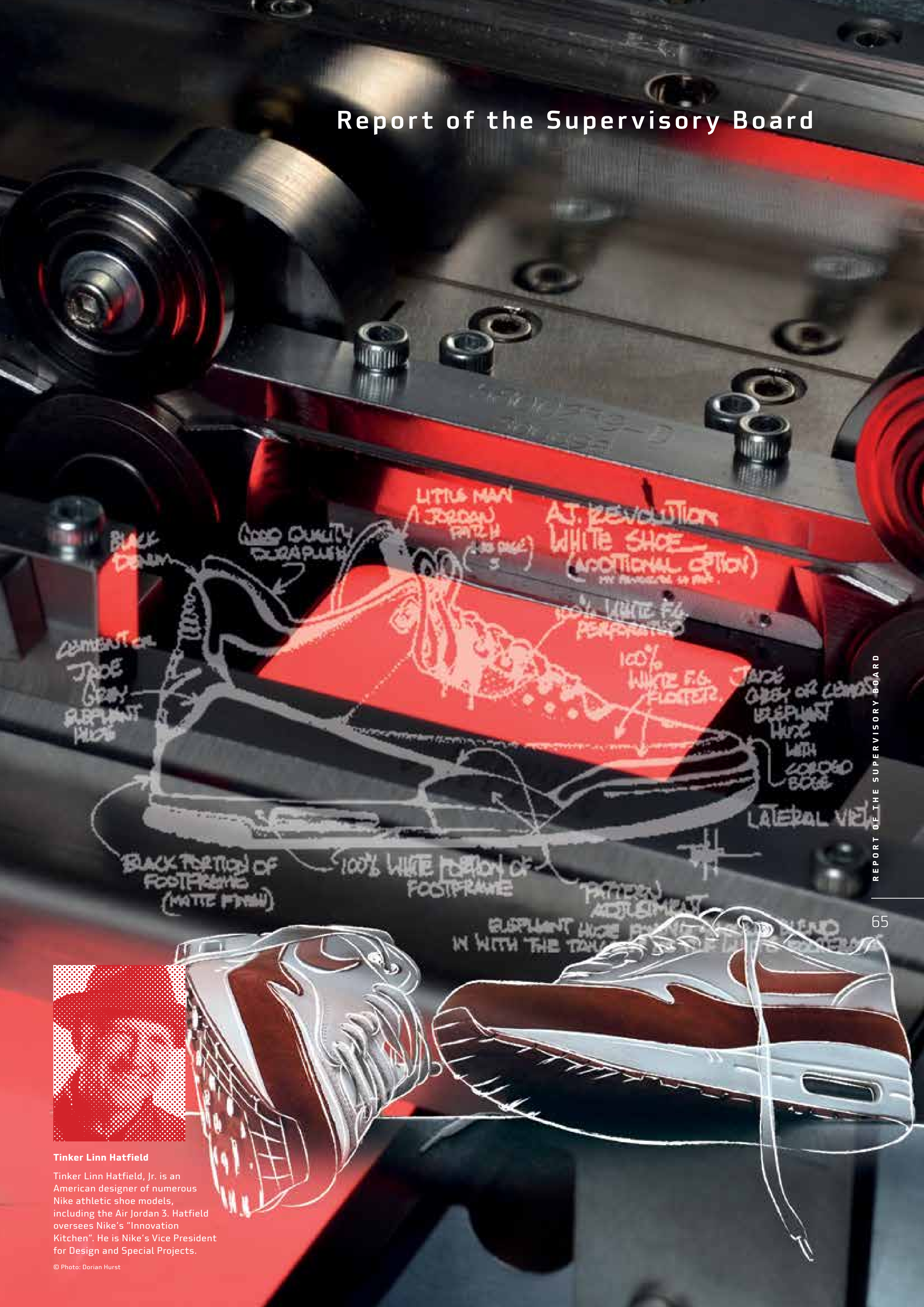
- The Financial Statements provide a true and fair view of the assets, liabilities, financial position and result for the financial year of Besi and its subsidiaries included in the consolidation as a whole.

- The Report of the Board of Management provides a true and fair view of the position at the balance sheet date and of the performance of the business during the financial year of Besi and its subsidiaries, details of which are contained in the Financial Statements. The Report of the Board of Management provides information on any material risks to which Besi is exposed.

Board of Management
Richard W. Blickman

February 19, 2019

Report of the Supervisory Board



Tinker Linn Hatfield

Tinker Linn Hatfield, Jr. is an American designer of numerous Nike athletic shoe models, including the Air Jordan 3. Hatfield oversees Nike's "Innovation Kitchen". He is Nike's Vice President for Design and Special Projects.

Report of the Supervisory Board

Besi is pleased to present its 2018 Annual Report prepared by the Board of Management. The Annual Report includes Besi's Financial Statements as prepared by the Board of Management for the financial year ended December 31, 2018. At its meeting on February 19, 2019, the Supervisory Board approved these Financial Statements. Ernst & Young Accountants LLP ("EY"), independent external auditors, duly examined the 2018 Besi Financial Statements and issued an unqualified opinion thereon.

The Supervisory Board recommends that the General Meeting of Shareholders adopts the 2018 Financial Statements as submitted by the Board of Management and approved by the Supervisory Board. The Board of Management has also submitted a proposal stating that a cash dividend of € 1.67 per share will be declared for the year ended December 31, 2018.

Supervision

Besi has a two-tier board structure consisting of a Board of Management and a Supervisory Board that is responsible for supervising and guiding the Board of Management. The Board of Management is currently comprised of one member, Mr Richard Blickman. The Supervisory Board is currently comprised of six members, all of whom are considered independent within the meaning of best practice provision 2.1.8 of the Dutch Corporate Governance Code. In the opinion of the Supervisory Board, the independence requirements referred to in best practice provisions 2.1.7 to 2.1.9 (inclusive) of the Dutch Corporate Governance Code have been fulfilled.

Name	Year elected	Term end
Mr Tom de Waard, Chairman	2016	2020
Mr Douglas Dunn, Vice Chairman	2015	2019
Ms Mona ElNaggar	2016	2020
Mr Kin Wah Loh	2015	2019
Mr Niek Hoek	2018	2022
Mr Carlo Bozotti	2018	2022

At the Annual General Meeting of Shareholders held on April 26, 2018, Mr Hoek and Mr Bozotti were each appointed for four-year terms. As a result of such appointments, the Supervisory Board currently consists of six members.

Mr Tom de Waard, Chairman of Besi's Supervisory Board, will resign his membership position at the Annual General Meeting of Shareholders to be held on April 26, 2019 prior to the end of his current four-year term ending in 2020. Mr De Waard has served as a member of the Supervisory Board for nineteen years.

The Supervisory Board proposes to appoint Mr Lodewijk J. Hijmans van den Bergh as a Supervisory Board member for a four-year term. It is the intention of the Supervisory Board to appoint Mr Hijmans van den Bergh as Chairman of Besi's Supervisory Board. Mr Hijmans van den Bergh (1963) has been a partner at the law firm De Brauw Blackstone Westbroek Lawyers, Amsterdam, since 2016. He also served at such firm as a partner and lawyer between 1988 and 2009 in their the Hague, Amsterdam and London offices. Between 2009 and 2015, Mr Hijmans van den Bergh served as Chief Corporate Governance Counsel and Member of the Executive Board of Royal Ahold NV (Zaandam, the Netherlands). Mr Hijmans van den Bergh currently serves as a member of the Supervisory Board of HAL Holding NV (Vice Chairman). He is also Chairman of the Board of Utrechts Universiteitsfonds and Fortino Capital Partners N.V. and a member of the Supervisory Councils of NKI/AVL (Nederlands Kankerinstituut/Anthonie van Leeuwenhoek Ziekenhuis) and Luchtverkeersleiding Nederland (Netherlands Air Traffic Control). Prior board memberships included ICA AB (Sweden) and the Royal Concertgebouw Orchestra (Deputy Chairman). Mr Hijmans van den Bergh is considered independent for the purposes of the Dutch Corporate Governance Code.

Mr Douglas Dunn, Vice Chairman of Besi's Supervisory Board, will be available for reappointment upon the expiration of his term in 2019. The Supervisory Board proposes to nominate Mr Douglas Dunn for a two-year term at the 2019 Annual Meeting of Shareholders. Mr Dunn was first appointed in 2009 and has served on Besi's Supervisory Board for 10 years. Mr Dunn has extensive experience in the semiconductor industry both as managing director and supervisory board member of many industry participants. In particular, his knowledge and understanding of the semiconductor equipment industry, management challenges and cycles has proved extremely valuable to Besi. This knowledge, combined with his performance as a member of Besi's Supervisory Board, makes the proposal of Mr Dunn's reappointment to be in the best interest of Besi.

In addition, Mr Kin Wah Loh will retire upon the expiration of his second four-year term at the 2019 Annual General Meeting of Shareholders.

Also after the proposed changes to the Supervisory Board at the 2019 Annual General Meeting of Shareholders, the Supervisory Board considers its current composition to be aligned with its objective for an adequate breadth of knowledge and experience amongst its members in relation to the technological and global character of Besi's business as well as an adequate level of knowledge and experience in financial, economic, technological, social and legal aspects of international business and governmental and public administration. The Supervisory Board believes that it has the requisite expertise, background, competencies and independence to carry out its duties and that all members of the Supervisory Board have sufficient time to spend on their respective duties and responsibilities.

The Supervisory Board currently has a diverse composition in terms of experience, background, competencies, education and nationality and is aligned with the objectives of its diversity policy and Supervisory

Board profile. Although gender and age diversity were enhanced by the appointment of Ms ElNaggar as a Supervisory Board member in 2012 and her reappointment in 2016, the Supervisory Board's current gender composition ratio is not in compliance with Dutch law. Article 2:166 of the Dutch Civil Code *(Burgerlijk Wetboek)* requires that at least 30% of the members of the Supervisory Board be female and that at least 30% be male. Diversity in general and gender in particular are important factors in the selection process of Supervisory Board candidates. When considering new candidates, the Supervisory Board will retain an active and open attitude with respect to the selection of female candidates. Gender is, however, only one factor of diversity. The qualifications of a particular person and the requirements for the position shall always prevail over all other factors and considerations when filling a vacancy.

During 2018, the Supervisory Board had eight meetings, of which four consisted of conference calls and two were combined meetings of the Supervisory Board and the Audit Committee. Further, the Supervisory Board made a full week trip to visit Besi Leshan, China, Besi Singapore and Besi APac in Shah Alam, Malaysia. During 2018, two members were absent with notice for one Supervisory Board meeting held by conference call.

Supervisory Board meeting topics

Key topics discussed by the Supervisory Board during 2018 included:

- Besi's annual budget as well as the quarterly revised estimates thereto.
- Quarterly business reviews and a review and discussion of Besi's 2019 annual budget with the Board of Management, certain members of senior management and key Besi staff.
- Besi's technology roadmap and related R&D programs.
- The implementation of the 2017-2021 strategic planning review initiatives and the principal risks associated therewith as well as the implementation of Besi's long-term value creation strategy.
- Succession planning and related development programs for senior management and key Besi staff members.
- The ongoing transfer of operations from Europe to Asia and reductions to Besi's cost structure.
- Potential strategic alliances and acquisitions.
- The general risks associated with Besi's operations.
- Corporate social responsibility related topics including the Corporate Social Responsibility and Non-Financial Information section of the Annual Report.
- The assessment and review provided by the Board of Management of the structure and operation of Besi's internal risk management and control systems as well as any significant changes thereto.
- The ongoing operational alignment of all Besi's processes, procedures, ERP and IT systems.
- The functioning and performance evaluation of the Board of Management, the Supervisory Board, the Audit Committee, the Remuneration and Nomination Committee and the individual members of the Supervisory Board. As part of this evaluation, the Supervisory Board conducted a self-assessment (without the presence of the member of the Board of Management), the results of which concluded that there is a proper mix of background and skills at the Supervisory Board level and that the Supervisory Board works well as a team with open and direct communication.
- The remuneration of the Board of Management and the Remuneration Report.

Other meeting topics discussed in 2018 included Besi's capital allocation policy.

Capital allocation policy

The Board of Management is responsible for Besi's optimal capital allocation and has adopted a policy which aims to enhance shareholder returns via dividends and share repurchases.

Due to Besi's earnings and cash flow generation in 2018, the Board of Management has proposed a cash dividend of € 1.67 per share for 2018 for approval at Besi's Annual General Meeting of Shareholders on April 26, 2019.

In addition, Besi announced the initiation of a new share repurchase program on July 26, 2018 (the "2018 Program") under which a maximum of € 75 million of shares could be repurchased through October 26, 2019, for capital reduction purposes and to help offset potential dilution from Besi's Convertible Notes and employee share issuance according to Besi's long-term incentive compensation plans. Under the 2018 Program, a total of 1.2 million additional shares were repurchased from July 26, 2018 through year end 2018 at an average price of € 18.33 for a total of € 22.5 million. The 2018 Program replaced the prior 2.0 million share repurchase program (the "2017 Program") that was terminated on July 25, 2018. From inception of the 2017 Program on October 26, 2017 through July 25, 2018, Besi repurchased a cumulative total of 1.6 million shares at an average price of € 24.63 per share for a total of € 39.7 million.

In 2018, a total of 1.6 million shares were repurchased under both the 2018 and 2017 Programs for a total of € 35.5 million at an average price of € 21.79 per share.

Supervisory Board committees

The Supervisory Board has established two committees, the Audit Committee and the Remuneration and Nomination Committee. These committees operate under terms of reference that have been approved by the Supervisory Board. Members of these committees are appointed from and among the Supervisory Board members.

Audit Committee

The Audit Committee consists of all Supervisory Board members. Until the AGM of April 26, 2018, the Chairman was Mr Jan Vaandrager whom was replaced by Mr Hoek upon Mr Vaandrager's retirement. The Audit Committee fulfills its responsibilities by carrying out the activities

Opening ceremony new building Besi Leshan, China, in March 2018

enumerated in its terms of reference including assisting the Supervisory Board in fulfilling its oversight responsibilities by reviewing:

- The effectiveness of the internal risk management and internal control systems and the internal audit function as described under "Risks and Risk Management" and in the chapter "Internal risk management and control" under Corporate Governance in this Annual Report. In view of increased business and risk management activities in Malaysia, China and Singapore, Besi enhanced its internal audit function, the progress of which was closely monitored in 2017 and 2018. In addition, Besi enhanced its fraud prevention systems in the Asia Pacific region through both internal and third party external assessments and investigations.
- The analysis and assessment provided by the Board of Management of the structure and operation of Besi's internal risk management and control systems and any significant changes thereto.
- Besi's capital structure, financing and treasury operations.
- Besi's European and global tax structure and transfer pricing policy including, in particular, developments affecting fiscal Base Erosion and Profit Shifting ("BEPS").
- Auditing, accounting and financial reporting processes and critical accounting policies, new accounting pronouncements and the further development of International Financial Reporting Standards as adopted by the EU ("IFRS"). In 2018, particular attention was paid to the preparation for the implementation of IFRS 9 Financial Instruments, IFRS 15 Revenue from Contracts with Customers and IFRS 16 Leases.
- The quality of work, reporting, expertise and independence of EY, Besi's independent external auditor on a regular basis and, in particular, the appropriateness of the provision of non-audit services. During 2018, no non-audit services took place in the Netherlands. Non-audit services outside the Netherlands were kept to a minimum in order to prevent a potential conflict of interest.
- The terms of EY's engagement, including the scope of the audit, the materiality thresholds to be used and the remuneration paid for the audit.
- The receipt, retention and treatment of complaints and the anonymous submission of confidential concerns by employees involving accounting matters. Besi's Whistleblower procedure can be found on the Company's website: **www.besi.com**.
- Information and communication technology deployment, including the ongoing implementation of the global ERP system and monitoring enhancements made to the SAP system in 2018.
- Besi's cybersecurity profile including risks and measures available to counter the rising threat of cybercrime.

In 2018, the Audit Committee had four meetings, two of which were via conference call, to discuss the items above as well as the scope and results of EY's audit of the Financial Statements. EY attended one meeting of the Audit Committee in 2018 and the former auditor Deloitte attended one meeting. The Audit Committee separately met with Deloitte once without the presence of the Board of Management. In 2018, no Audit Committee members were absent for meetings.

The Audit Committee terms of reference are posted on Besi's website: **www.besi.com**.

Remuneration and Nomination Committee

The Chairman of the Remuneration and Nomination Committee is Mr Douglas Dunn and its members include Mr Tom de Waard, Ms Mona ElNaggar and Mr Kin Wah Loh and, as from April 26, 2018, Mr Niek Hoek and, as from July 1, 2018, Mr Carlo Bozotti.

The Remuneration and Nomination Committee has the following responsibilities with respect to remuneration for which it fulfills its obligations by:

- Making a proposal to the Supervisory Board for the Remuneration Policy to be pursued.
- Annually reviewing and proposing the corporate goals and objectives related to the compensation of the Board of Management.
- Making a proposal for the remuneration of the member of the Board of Management within the scope of the Remuneration Policy adopted by the General Meeting of Shareholders for adoption by the Supervisory Board. Such proposal shall, in any event, deal with:
  - The remuneration structure.
  - The amount of the fixed and variable remuneration components.
  - The performance criteria used.
  - The scenario analyses carried out.
  - Company-wide pay ratio.
- Overseeing Besi's equity incentive plans.
- Preparing the Remuneration Report.

The Remuneration and Nomination Committee has the following responsibilities with respect to the selection and nomination of Supervisory Board members and members of the Board of Management for which it fulfills its obligations by:

- Determining selection criteria and appointment procedures for Supervisory Board members and members of the Board of Management.
- Periodically assessing the size and composition of the Supervisory Board and the Board of Management and making proposals for the composition profile of the Supervisory Board.
- Periodically assessing the functioning of individual Supervisory Board members and members of the Board of Management and providing reports to the Supervisory Board.
- Creating and updating succession plans for Supervisory Board members and the members of the Board of Management.
- Making proposals for appointments and reappointments.
- Supervising the policy of the Board of Management on selection criteria and appointment procedures for senior management.

The Remuneration and Nomination Committee met once in 2018 to discuss the topics above at which no members were absent. The member of the Board of Management was not present during the meeting.

The Remuneration and Nomination Committee's terms of reference are posted on the Company's website: **www.besi.com**.

Remuneration Report

This Remuneration Report is issued by the Supervisory Board upon recommendation by its Remuneration and Nomination Committee. The Committee reports an overview of the Remuneration Policy, the remuneration structure, the application of the Remuneration Policy and the components of the remuneration of the Board of Management. In addition, the Committee is informed about the remuneration of the direct reports to the Board of Management including the Short-Term and Long-Term Incentive Plans applicable thereto.

Remuneration Policy

The Remuneration Policy applicable for the year 2018, as outlined in the Remuneration Policy 2017-2019, was approved by the Annual General Meeting of Shareholders held on April 29, 2016. This Remuneration Policy 2017-2019 extends the Remuneration Policy 2011-2016 that was developed in view of changes in legislation and a review of external market best practices, taking into account the principles and best practice provisions of the Dutch Corporate Governance Code.

The Supervisory Board seeks to achieve three broad goals in connection with Besi's Remuneration Policy and decisions regarding individual compensation:

- The Supervisory Board structures the Company's remuneration programs in a manner that it believes will enable Besi to retain, motivate and attract executives who are capable of leading the Company to achieve its business objectives.
- The Supervisory Board establishes remuneration programs that are designed to reward members of the Board of Management for the achievement of specified business objectives as a whole or the individual executive's particular business unit. By linking remuneration to specific goals, the Supervisory Board believes that it creates a performance-oriented environment for the Company's executives.
- The Company's remuneration programs are intended to provide members of the Board of Management with an equity interest in the Company so as to link a portion of executive remuneration with the long-term performance of Besi's ordinary shares and to align their interests with those of shareholders.

The Supervisory Board regularly (i) reviews Besi's business objectives, (ii) undertakes risk assessments, (iii) assesses Besi's overall performance with respect to its business objectives and (iv) considers the performance of the individual member of the Board of Management compared to their own specific business objectives. Based on these objectives, the Supervisory Board determines a balanced mix between fixed and variable remuneration components and a set of key performance indicators linked to the variable remuneration components that are aligned with the Company's business objectives.

In its evaluation of the efficacy of Besi's Remuneration Policy, the Supervisory Board has performed in-depth scenario analyses of the variable remuneration components under the revised and prolonged policy. The probability of vesting and pay-out of the performance share awards have been taken into account in these scenario analyses. The Supervisory Board has set the performance targets on the basis of the outcome of the scenario analyses. Pay differentials and the executive's position within Besi have also been taken into account and have been considered. In this respect, the internal pay ratio was also considered and discussed. In 2018, the internal pay ratio was 39 (2017: 39). It was determined based on the annual total remuneration of the member of the Board of Management and the average total remuneration of all other full-time employees, as reported under IFRS, excluding discretionary elements.

Furthermore, when drafting the remuneration proposal for the member of the Board of Management, the Supervisory Board considers the views of the member of the Board of Management with regard to the level and structure of their own remuneration.

Remuneration structure

The total remuneration package of the member of the Board of Management is established on an annual basis by the Supervisory Board, upon proposal of its Remuneration and Nomination Committee, and consists of five components based on the goals set forth above:

1. Base Salary
2. Short-Term Incentive (annual performance based cash bonus)
3. Long-Term Incentive (annual conditional award of performance shares)
4. Pension
5. Other Benefits

The above components are regularly compared with a balanced remuneration reference group of companies selected based on industry, size and geographical spread to determine the total remuneration package for the member of the Board of Management. The following companies are included in this remuneration reference group and was updated if any companies have been delisted or acquired.

Remuneration Reference Group
Aalberts Industries N.V.
Accell Group N.V.
Aixtron SE
Arcadis N.V.
ASM International N.V.
Axcelis Technologies, Inc.
Brooks Automation, Inc.
Cohu, Inc.
Corbion N.V.
Infineon Technologies AG
Kendrion N.V.
Koninklijke Wessanen N.V.
Kulicke & Soffa Industries, Inc.
Lam Research Corporation
Nanometrics, Inc.
Nova Measuring Instruments Ltd.
STMicroelectronics N.V.
SÜSS MicroTec SE
TKH Group N.V.
Veeco Instruments, Inc.

The composition of this remuneration reference group will be reviewed by the Supervisory Board on a regular basis and updated if necessary to ensure an appropriate composition. Any substantial changes to the composition of the remuneration reference group will be subject to the approval of the Annual General Meeting of Shareholders.

In establishing the remuneration for members of the Board of Management, the Supervisory Board consults a professional external remuneration consultant in carrying out its duties. The Supervisory Board will verify that the consultant concerned does not similarly provide advice to the Board of Management so that no conflicts of interest exist.

1. Base Salary

Each year, the Supervisory Board reviews the annual base salary for the member of the Board of Management and considers whether to adjust base salary levels. Base salary of the member of the Board of Management will be determined by comparing the base salary levels within median and upper quartile levels of the above mentioned remuneration reference group. The Supervisory Board also considers the historic salary levels of the individual and the nature of the individual's roles and responsibilities.

2. Short-Term Incentive (annual cash bonus)

The annual cash bonus opportunity is linked to the achievement of pre-determined performance conditions based on financial and non-financial objectives as determined by the Supervisory Board. The following performance measures apply:

- *Net Income expressed as a percentage of Revenue.* The financial measure net income is preferred over other financial ratios for the Short-Term Incentive of Besi as Net Income is:
  - a key indicator for evaluating the overall performance of Besi for the year and therefore an important contributor to shareholder value;
  - a key factor given the cyclical market that Besi is operating in; and
  - a financial measure that can be influenced by the member of the Board of Management.

- *Personal performance of the member of the Board of Management.* The annual criteria to measure the personal performance of the member of the Board of Management are at the sole discretion of the Supervisory Board, enabling the Supervisory Board to focus on certain targets that are considered important for the upcoming year. The Remuneration and Nomination Committee will propose to the Supervisory Board annually both financial and non-financial criteria to measure the personal performance of the member of the Board of Management.

The total annual cash bonus opportunity of the member of the Board of Management shall be determined on the basis of the following performance/pay-out grid. However, the Supervisory Board will apply a total annual voluntary bonus cap of 80% of such individuals' gross annual salary over the Company's financial year preceding the year in which such Annual Cash Bonus is awarded, except if the Supervisory Board uses its discretionary power to adjust (upwards or downwards) or decides to not apply this total annual voluntary bonus cap in the event that extraordinary and/or sustainable performance is delivered.

Short-Term Incentive: Performance versus pay-out	**At minimum**	**At target performance**
	in % of the individual's gross annual base salary	
Net Income as % of Revenue[1]	0%	70%
Personal Performance Targets[2]	0%	30%
Total annual bonus pay-out[3]	0%	80%

[1] Net Income/Revenue: the actual pay-out ranges from 0% to 70% of the individual's gross annual base salary.
[2] Personal performance: the actual pay-out ranges from 0% to maximum 30% of the individual's gross annual base salary.
[3] A cumulative annual voluntary cash bonus cap of 80% based on the individual's gross annual salary is applicable. The composition may vary depending on the Net Income and personal performance. The Supervisory Board holds the discretionary power to decide to not apply this value cap.

3. Long-Term Incentive (annual conditional award of performance shares)

The Long-Term Incentive consists of a conditional award of performance shares. The award represents a conditional right to receive a certain number of shares in Besi depending on the achievement of pre-determined financial performance objectives set by the Supervisory Board over a three-year performance period, which are:

- *Net Income/Revenue over three calendar years*, i.e. Net Income expressed as a percentage of Revenue over the three-year performance period. Net Income/Revenue is considered a key measure for creating sustainable long-term shareholder value.

- *Relative Total Shareholder Return ("TSR")* The development of Besi's share price including the reinvestment of dividends during a three-year performance period will be compared to a comparator group of 19 listed companies operating in the semiconductor equipment industry, whereby three-month share price averaging is being applied at the start and at the end of the TSR performance period. The TSR over the three-year performance period is also considered a key measure for indicating the development of shareholder value and Besi's TSR relative to its comparators in the semiconductor equipment industry and is an appropriate performance measure to align the interests of the members of the Board of Management with those of shareholders. The composition of the comparator group will be reviewed annually by the Supervisory Board and, if required, will be adjusted due to changes in the performance, size and market value, among other considerations, of the companies involved which could affect comparability. Adjustments to the comparator group, including replacements, will be based on predetermined internal guidelines. The TSR comparator group currently consists of the following companies:

TSR comparator group (including Besi)
Aixtron SE
Applied Materials, Inc.
ASM International N.V.
ASML Holding N.V.
ASM Pacific Technology Ltd.
Axcelis Technologies, Inc.
Brooks Automation, Inc.
Cohu, Inc.
Disco Corporation
Entegris, Inc.
Kulicke & Soffa Industries, Inc.
Lam Research Corporation
Nanometrics, Inc.[1]
Nova Measuring Instruments Ltd.[2]
Shinkawa Ltd.
SÜSS MicroTec SE
Tokyo Electron Ltd.
Tokyo Seimitsu Co., Ltd.
Veeco Instruments, Inc.

[1] Subsequent to the acquisition by Veeco that was announced on February 2, 2017, Ultratech, Inc.'s shares were delisted. As such, it has been removed and replaced by Nanometrics, Inc. as of the business day prior to the acquisition announcement date.
[2] Further to the delisting of Mattson Technology, Inc., Mattson Technology, Inc. is replaced by Nova Measuring Instruments Ltd. as per the business day prior to the day Beijing E-Town Dragon announced the acquisition.

Conditional award

The number of performance shares conditionally awarded will be determined by the Supervisory Board based on at target level equal to 100% of the individual's gross annual base salary, as follows:

At target number of performance shares to be awarded is determined based on (i) 100% of the individual's gross annual base salary, divided by (ii) the average closing price of Besi's shares for all trading days in the calendar quarter immediately preceding the start of the three-year performance period.

Vesting

At the end of the three-year performance period, depending on the actual performance of Besi during the performance period, the number of shares that become unconditional (i.e. number of shares vesting) will be determined. The vested shares are subject to a two-year lock-up period which means that the member of the Board of Management will have to retain them for two years following the vesting date. However, he will be allowed to sell sufficient shares to cover the income tax liability upon vesting of the performance shares.

The actual number of performance shares which will vest at the end of the three-year performance period will be determined on the basis of the following grid:

Long-Term Incentive: Performance versus vesting	**At minimum**	**At target performance**	**At maximum (stretched performance)**
	in % of the number of performance shares awarded		
Net Income as % of Revenue[1]	0%	50%	75%
Relative TSR performance[2]	0%	50%	75%
Total number of shares vesting	**0%**	**100%**	**150%**

[1] Half of the performance shares awarded is linked to Besi's Net Income relative to its revenue over the three-year performance period; the vesting range is between 0% and 75% of the total number of performance shares awarded to the individual.
[2] Half of the performance shares awarded is linked to Besi's relative TSR performance.

The performance shares awarded subject to Besi's TSR performance are based on the actual absolute ranking of Besi within the comparator group and vest in a range between 0% and 75% of the total number of performance shares awarded to the individual. The vesting is determined based on the following schedule:

Ranking of Besi in comparator group based on relative TSR during performance period versus pay-out	**Vesting percentage performance shares**
Top 3	75%
Rank 4 - Rank 6	50% (at target)
Rank 7 - Rank 12	25%
Rank 13 - Rank 20	0%

Performance adjustment
The Supervisory Board may at its absolute discretion determine after the three-year performance period for awards made as from 2017 to adjust either upward or downward the number of performance shares that will vest with a maximum of 20%. This discretionary performance adjustment may be applied by the Supervisory Board to reflect the overall performance achieved and market developments, and further aligns the interests of members of the Board of Management with those of the shareholders.

Clawback and ultimate remedium
The Short-Term Incentive and Long-Term Incentive components for the member of the Board of Management are subject to clawback provisions. In addition, risk assessment tests are in place and measures are included in the variable remuneration documentation for members of the Board of Management to ensure that shareholders' interests are protected. In this respect, the Supervisory Board holds the discretionary authority to reclaim all or part of the Short-Term Incentive and Long-Term Incentive if such variable remuneration has been made based on incorrect financial data or other data or in the case of fraud, gross negligence, willful misconduct or any activity detrimental to the Company. This clawback is applicable to both the vested and unvested part of the Long-Term Incentive components.

The Short-Term Incentive and Long-Term Incentive components for members of the Board of Management are also subject to ultimate remedium clauses. The Supervisory Board holds the discretionary authority to adjust the value of the conditional variable remuneration components downwards as well as upwards. The adjustment can be made if the Supervisory Board is of the opinion that an unfair result due to extraordinary circumstances would be produced and in this assessment the overall Besi performance is taken into consideration.

Additional discretionary performance share awards
The Supervisory Board may at its absolute discretion, upon recommendation of the Remuneration and Nomination Committee, award additional performance shares to members of the Board of Management as a reward for extraordinary achievements or exceptional performance in a year, up to a maximum of 120,000 shares per year (60,000 shares awarded initially as adjusted for the two for one stock split effected on May 4, 2018) which may be subject to additional terms and conditions as determined by the Supervisory Board. In case the Supervisory Board in any year decides to apply an upward performance adjustment in respect of the vesting of the Long-Term Incentive performance shares, as referred to under "Performance adjustment", such additional performance shares that will vest upon this performance adjustment are included in the maximum of 120,000 additional performance shares that can be awarded to members of the Board of Management at the discretion of the Supervisory Board.

Number of shares available
The aggregate total number of performance shares available shall not exceed 1.5% of the total number of outstanding shares as at the 31st of December of the year prior to the year in which the performance shares are awarded.

4. Pensions
Different pension arrangements are provided to members of the Board of Management based on their salaries, local customs, and the rules existing in their countries of origin. A defined contribution scheme is in place for statutory directors, of whom the CEO is currently the

only one. Due to legislative changes enacted in the Netherlands as from the beginning of 2015, part of the pension contribution is no longer tax exempt. As such, in order to provide for a market competitive pension arrangement for Dutch members of the Board of Management, the pension contribution commencing in 2015 is based on a premium ladder as in effect in 2014. However, commencing in 2015, a portion of this contribution is funded directly to the personal pension account of the statutory director as a tax exempt contribution and the remaining balance is paid to the statutory director as a taxable pension allowance which can be used by the statutory director to build up his net pension on a voluntary basis.

5. Other benefits
Other benefits awarded to members of the Board of Management are linked to base pay and in line with general prevailing market practice.

Loans
As a policy, the Company does not provide loans to members of the Board of Management.

Employment contracts/service contracts
Service contracts with any new member of the Board of Management will in principle be entered into for a period of four years. Existing employment contracts for an indefinite period of time will not be replaced by contracts with a limited period or by contracts with different conditions.

Severance payment
The remuneration paid to members of the Board of Management in the event of dismissal may not exceed the individual's gross annual base salary (fixed component). If the maximum of one year's salary would be manifestly unreasonable for a member of the Board of Management who is dismissed during his first term of office, such Board of Management member shall be eligible for severance pay not exceeding two times his annual base salary.

Application of the Remuneration Policy in 2018
The Supervisory Board upon recommendation of its Remuneration and Nomination Committee applied the Remuneration Policy in 2018 as set forth below. The only member of the Board of Management in 2018 was Richard W. Blickman, Besi's CEO.

1. Base Salary
At the end of 2017, the base salary of the CEO was reviewed, taking into consideration the remuneration reference group. The Remuneration and Nomination Committee has analyzed and considered the outcome of this review and recommended to the Supervisory Board, as outlined in the Remuneration Policy 2017-2019, to increase the base salary of the CEO to between median and upper quartile market levels of the remuneration reference group in line with the Remuneration Policy 2017-2019. The Supervisory Board, following the recommendation of the Remuneration and Nomination Committee, decided that the 2018 base salary of the CEO be set at € 600,000. This adjustment was effectuated after the AGM on April 26, 2018 with retrospective effect as per January 1, 2018. This base salary will be maintained at the same level during 2019.

2. Short-Term Incentive
The Short-Term Incentive (cash bonus) awarded to the member of the Board of Management is based on the following pre-determined performance conditions:
(i) Net Income expressed as a percentage of Revenue and (ii) personal performance expressed in certain financial and non-financial targets that were considered important for 2018.

Besi's 2018 Net Income as a percentage of Revenue was 25.9%. Based on pre-defined target ranges that have been achieved above the maximum target range set and upon recommendation by its Remuneration and Nomination Committee, the Supervisory Board awarded the member of the Board of Management for the first financial performance condition a cash bonus equal to 70% of his annual base salary for the year 2018. Furthermore, the Remuneration and Nomination Committee thoroughly reviewed the performance of the member of the Board of Management in relation to six pre-defined personal financial and non-financial performance objectives including (i) the continued implementation of Besi's strategic plan 2017-2021, (ii) succession planning, (iii) execution of organizational initiatives in accordance with Besi's strategy, (iv) focus on new development areas, (v) the build out of Besi's R&D efforts and organizational structure at its Singapore operations and (vi) maintenance of corporate social responsibility programs and initiatives.

Based on this review and upon the recommendation by the Remuneration and Nomination Committee, the Supervisory Board decided to award the member of the Board of Management a cash bonus related to personal performance equal to 30% of his annual base salary for 2018. Consequently, the sum of the financial and non-financial targets comprising the total cash bonus for the year 2018 amounts to 100% of the gross base annual salary. This total cash bonus percentage is higher than the voluntary bonus cap of 80% of the gross base annual salary for the member of the Board of Management in 2018. Based on the Company's superior revenue and net income growth relative to peers, market share gains, organizational actions taken and the ongoing implementation of strategic and CSR initiatives, the Supervisory Board unanimously decided, upon recommendation of the Remuneration and Nomination Committee, to use its discretionary power and not to apply the voluntary bonus cap of 80% and to award the maximum cash bonus for 2018 equal to 100% of the gross base salary (€ 600,000).

3. Long-Term Incentive

As from 2014, the Long-Term Incentive (annual conditional award of performance shares) is subject to continued employment and based on the following pre-determined performance conditions: (i) Net Income as a percentage of Revenue over three calendar years and (ii) the development of Besi's share price including the reinvestment of dividends during a three-year performance period compared to a comparator group of 19 listed companies operating in the semiconductor equipment industry.

For the three-year performance periods 2016-2018, 2017-2019 and 2018-2020, the "at target (100%)" number of performance shares (adjusted for the two for one stock split effected in May 2018) conditionally awarded aggregated 56,488, 36,074 and 18,026 shares, respectively. The number of at target shares awarded is calculated based on the gross annual base salary divided by the average closing share price for all trading days in the fourth quarter of the year immediately preceding the start of the performance period. The performance shares conditionally awarded will vest in 2019, 2020 and 2021. The number of shares that will actually vest will be based on the above mentioned pre-determined performance conditions.

The number of performance shares (adjusted for the two for one stock split effective May 4, 2018) which could vest for the three-year performance periods 2016-2018, 2017-2019 and 2018-2020 will range between nil (in the case of below threshold performance) to a maximum of 84,732 shares (2016-2018 award), 54,111 shares (2017-2019 award) and 27,039 (2018-2020 award). The member of the Board of Management could receive 150% of the "at target" number of performance shares awarded if stretched performance is achieved with respect to both performance measures during each respective performance period.

Based on the actual performance realized for the 2016-2018 performance share award based on the Net Income as a percentage of Revenue (50% of the award) and Relative TSR performance (50% of the award) during the three-year performance period 2016-2018, the Net Income as a percentage of Revenue has been overachieved resulting in the maximum vesting of 75% of this part of the performance shares awarded. For the Relative TSR performance condition, Besi ranked within the comparator group at the third position resulting in a vesting of 75% of the performance shares awarded. Based on this maximum performance achieved resulting in a total vesting of 150%, 84,732 shares of the 2016-2018 performance shares awarded will vest on April 26, 2019, subject to continued employment until this date. The vested shares are subject to a two-year lock-up period, except for the shares that may be sold to cover the withholding/income tax liability upon vesting of the performance shares.

Under the Remuneration Policy 2017-2019, the Supervisory Board may, at its own discretion and upon recommendation of the Remuneration and Nomination Committee, award additional performance shares to the member of the Board of Management as a reward for extraordinary achievements or exceptional performance, up to a maximum of 120,000 shares (as adjusted for the two for one stock split on May 4, 2018). In 2018, the Supervisory Board conditionally awarded the member of the Board of Management the maximum of 120,000 shares. This extraordinary conditional award was made in recognition of the continued successful implementation of Besi's business strategy, superior revenue and net income growth relative to peers, market share gains, organizational actions taken and ongoing implementation of strategic and CRS initiatives. As a result of his activities and leadership, the Company is fit for purpose, has become a leader in the assembly equipment industry with forward strategic thinking with respect to Besi's internal development, the market and competition. This extraordinary award vested on February 14, 2018 as approved by the Supervisory Board.
The vested shares are subject to a two-year lock-up period which means that the member of the Board of Management will have to retain them for two years following the vesting date.

4. Pensions

Prior to 2015, a defined contribution scheme with an annual contribution (based on a maximum allowed percentage of base salary for tax purposes) was in place for the member of the Board of Management. As a result of the legislative changes applicable for Dutch pension arrangements as from January 1, 2015, the Remuneration and Nomination Committee reviewed Besi's pension policy for Board of Management members during 2014.

Based on the outcome of this review, as from January 1, 2015 pension contributions for members of the Board of Management continue to be based on contributions applicable for 2014. However, a portion of this contribution is funded directly to the personal pension account of the member of the Board of Management as a tax exempt contribution and the remaining balance is paid as a taxed pension allowance, which can be used by the member of the Board of Management to build up his pension on a voluntary basis.

Remuneration of the Board of Management
for the year 2018

(in euro, except for performance shares)	**R.W. Blickman (CEO)**
Base salary	600,000
Annual cash bonus	600,000
Other benefits[1]	231,766
Total cash benefits	**1,431,766**
Pension contribution	38,912
Outstanding Long-Term Incentive Plan[2]	786,782
Total remuneration, excluding discretionary elements	**2,257,460**
Discretionary grant made in 2018[3]	4,551,000
Total remuneration	**6,808,460**
Conditional performance shares (adjusted for two for one stock split) awarded relating to 2018[4]	18,026

1 Other benefits include a taxable pension allowance of € 171,279.
2 Expenses recognized in 2018 for the 2016, 2017 and 2018 grants made under the Incentive Plan as determined in accordance with IFRS.
3 Expenses recognized in 2018 for discretionary grant of 120,000 shares vested February 14, 2018 as determined in accordance with IFRS.
4 Performance shares may vest in 2021, subject to continued service and the actual performance during the performance period 2018-2020.

5. Other benefits

Other benefits include expense compensation, medical insurance and social security premiums.

Loans

At the end of 2018, no loans, advances or guarantees were outstanding.

Remuneration Supervisory Board members

The remuneration of Supervisory Board members is reviewed on an annual basis. Effective April 26, 2018, the General Meeting of Shareholders approved the proposal of the Supervisory Board, upon recommendation of its Remuneration and Nomination Committee, to upwardly adjust the remuneration of the Supervisory Board by 10% given that the last adjustment was made in 2014 and in light of the Company's growth and the associated increase in the responsibilities, workload and liabilities of Supervisory Board members during such time. Furthermore, an intercontinental travel allowance was introduced and approved in order to retain and attract international Supervisory Board members. With respect to this proposal, the Supervisory Board has been advised by an independent external expert utilizing a compensation benchmark of AMX companies. The AMX companies were selected based on their comparable size and market capitalization as determined by Euronext Amsterdam.

The current remuneration of Supervisory Board members is as follows:

- Member of the Supervisory Board, including committee membership(s), € 62,700.
- Member of the Supervisory Board, and Chair of a committee, € 66,000.
- Chairman of the Supervisory Board, € 79,200.
- Meeting attendance fees, including conference calls, none.
- Intercontinental travel allowance for physical attendance of at minimum three meetings, € 6,000.

Corporate governance

The Supervisory Board acknowledges the importance of good corporate governance, the most important elements of which are transparency, independence and accountability. The Supervisory Board continuously reviews important corporate governance developments. Reference is made to the Corporate Governance section in this Annual Report on pages 60 to 64. Deviations from the Dutch Corporate Governance Code are explained in that section.

The Supervisory Board would like to express its thanks and appreciation to all involved for their hard work and dedication to the Company in 2018.

The Supervisory Board
Tom de Waard, Chairman

February 19, 2019

Board of Management and Supervisory Board Members

Board of Management

Richard W. Blickman (male, 1954)
Dutch nationality
Appointed since 1995

Chief Executive Officer, Chairman of the Board of Management

Additional functions
Member of the Netherlands Academy of Technology and Innovation.
Member of the Supervisory Boards of Ennismore Fund Management and Koning & Hartman B.V.

Supervisory Board

Tom de Waard (male, 1946)
Chairman
Dutch nationality
Member since 2000
Current term 2016 - 2020

Lawyer, arbitrator, mediator Viotta Advocaten

Additional functions
Chairman of the board of Administratiekantoor Aandelen Telegraaf Media Group N.V., executive member of the board of Nexperia Holding B.V. and non-executive director of Xsens Holding B.V.

Douglas J. Dunn (male, 1944)
Vice Chairman
British nationality
Member since 2009
Current term 2015 - 2019

Additional functions
Non-executive director of the board of Global Foundries and member of the Supervisory Board of Soitec S.A. (retired June 2018)

Mona ElNaggar (female, 1967)
British and American nationality
Member since 2012
Current term 2016 - 2020

Partner Valo Ventures

Kin Wah Loh (male, 1954)
Malaysian nationality
Member since 2015
Current term 2015 - 2019

Chairman Synesys Technologies Holding Pte. Ltd., Singapore

Additional functions
Member of the Supervisory Board of AMS AG, Austria.
Director AEM Holding Ltd, Singapore.

Niek Hoek (male, 1956)
Dutch nationality
Member since 2018
Current term 2018 - 2022

Director of Brandaris Capital

Additional functions
Chairman of the Supervisory Board of Arcadis N.V., Chairman of the Supervisory Board of Van Oord N.V. and member of the Supervisory Board of Anthony Veder Group N.V. (Netherlands Antilles). Chairs the board of Stichting Preferente Aandelen Nedap. Director Dutch Star Companies ONE N.V.

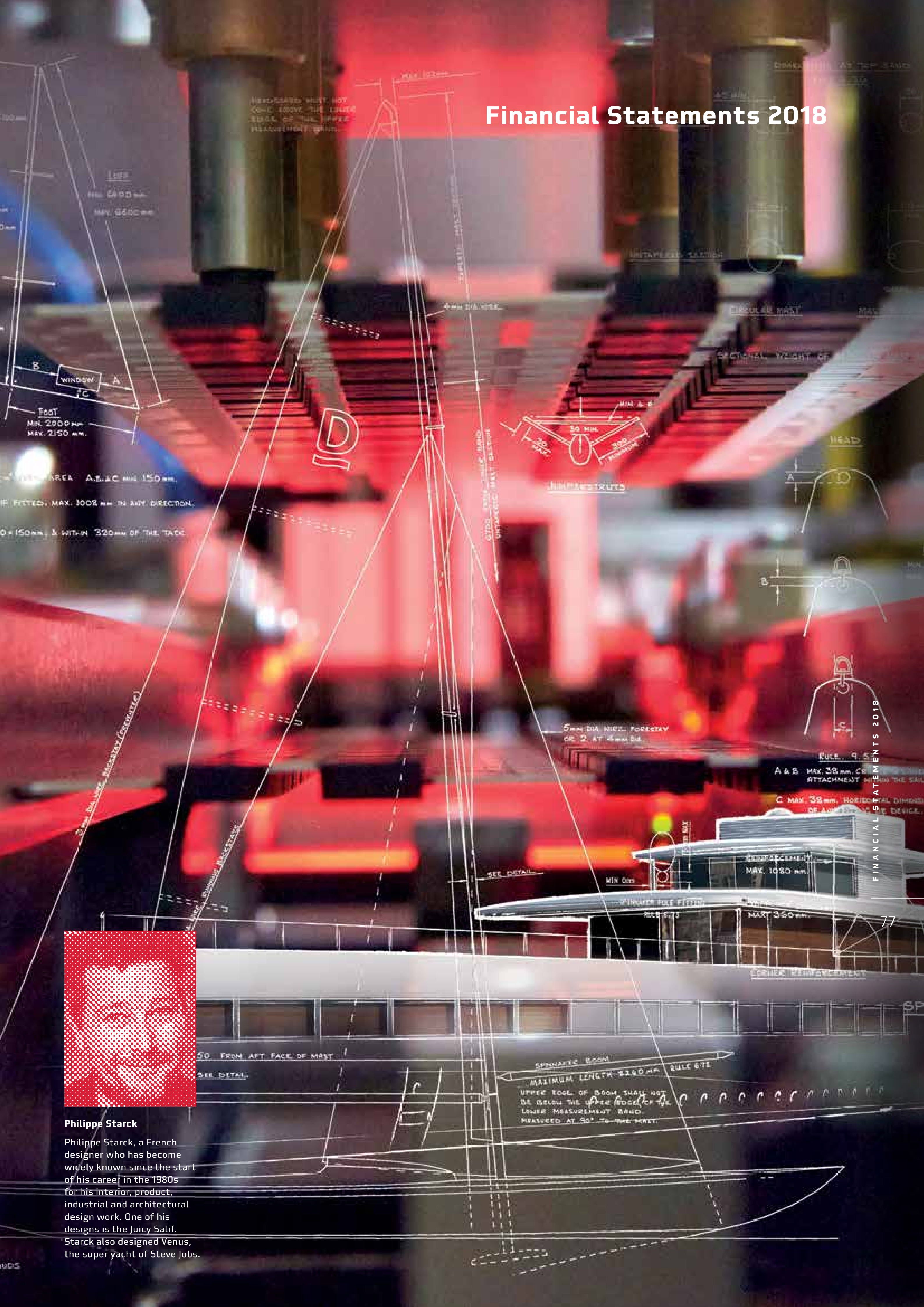
Carlo Bozotti (male, 1952)
Italian and Swiss nationality
Member since 2018
Current term 2018 - 2022

Industrial Partner of FSI, Italian Investment Fund

The Supervisory Board has formed the following committees:

Audit Committee
Members: Niek Hoek (Chairman), Douglas Dunn, Mona ElNaggar, Kin Wah Loh, Carlo Bozotti and Tom de Waard.

Remuneration and Nomination Committee
Members: Douglas Dunn (Chairman), Mona ElNaggar, Kin Wah Loh, Niek Hoek, Carlo Bozotti and Tom de Waard.



Financial Statements 2018

Philippe Starck

Philippe Starck, a French designer who has become widely known since the start of his career in the 1980s for his interior, product, industrial and architectural design work. One of his designs is the Juicy Salif. Starck also designed Venus, the super yacht of Steve Jobs.

Consolidated Statement of Financial Position

(euro in thousands)	Note	December 31, 2018	December 31, 2017
Assets			
Cash and cash equivalents	3	295,539	527,806
Deposits	4	130,000	-
Trade receivables	5	106,347	151,654
Inventories	6	60,237	70,947
Income tax receivable		159	370
Other receivables	7	8,015	7,514
Prepayments	8	3,322	4,138
Total current assets		**603,619**	**762,429**
Property, plant and equipment	9	28,551	26,517
Goodwill	10	45,099	44,687
Other intangible assets	11	38,334	34,140
Deferred tax assets	12	4,769	4,660
Deposits	4	50,000	-
Other non-current assets	13	2,317	2,520
Total non-current assets		**169,070**	**112,524**
Total assets		**772,689**	**874,953**
Liabilities and equity			
Notes payable to banks	14	2,812	1,742
Current portion of long-term debt and financial leases	19	1,502	11,228
Trade payables	16	33,158	62,721
Income tax payable		15,704	17,234
Provisions	15	5,201	8,265
Other payables	17	26,375	29,297
Other current liabilities	18	16,174	15,799
Total current liabilities		**100,926**	**146,286**
Long-term debt and financial leases	19	271,824	267,274
Deferred tax liabilities	12	10,244	10,050
Provisions	20, 21	15,013	17,211
Other non-current liabilities	18	2,494	-
Total non-current liabilities		**299,575**	**294,535**
Share capital	22	800	400
Share premium		197,280	222,322
Retained earnings		125,859	173,380
Other reserves	22	48,249	38,030
Equity attributable to owners of the Company		**372,188**	**434,132**
Total liabilities and equity		**772,689**	**874,953**

Consolidated Statement of Comprehensive Income

(euro in thousands, except share and per share data)	Note	Year ended December 31, 2018	2017
Revenue	24	525,256	592,785
Cost of sales		226,793	254,160
Gross profit		**298,463**	**338,625**
Selling, general and administrative expenses		90,284	93,316
Research and development expenses		35,451	35,876
Total operating expenses		**125,735**	**129,192**
Operating income		**172,728**	**209,433**
Financial income	28	23	641
Financial expense	28	(17,807)	(10,863)
Financial income (expense), net		**(17,784)**	**(10,222)**
Income before income tax		**154,944**	**199,211**
Income tax	12	18,688	26,056
Net income		**136,256**	**173,155**
Other comprehensive income			
Actuarial gain (loss), net of income tax		425	467
Items that will not be reclassified to profit and loss		**425**	**467**
Currency translation differences		7,058	(17,757)
Unrealized hedging results, net of income tax		(835)	1,013
Items that may be reclassified subsequently to profit or loss		**6,223**	**(16,744)**
Other comprehensive income (loss), net of income tax		**6,648**	**(16,277)**
Total comprehensive income		**142,904**	**156,878**
Net income attributable to:			
Equity holders of the parent company		136,256	172,991
Non-controlling interest (until date of purchase non-controlling interest)		-	164
Total net income		**136,256**	**173,155**
Total comprehensive income attributable to:			
Equity holders of the parent company		142,904	156,821
Non-controlling interest (until date of purchase non-controlling interest)		-	57
Total comprehensive income		**142,904**	**156,878**
Total net income per share attributable to the equity holders of the parent company[1]			
Basic		1.83	2.32
Diluted[2]		1.68	2.17
Weighted average number of shares used to compute income per share[1]			
Basic	29	74,440,864	74,673,574
Diluted	29	84,754,069	81,645,744

[1] The share and per share data have been retroactively adjusted for the two for one stock split effected in May 2018.
[2] The calculation of the diluted income per share for the year 2018 and 2017 assumes the exercise of equity-settled share-based payments. The calculation also assumes the conversion of the Company's Convertible Notes due 2023 and 2024 respectively as such conversion would have a dilutive effect.

Consolidated Statement of Changes in Equity

(euro in thousands, except for share data)	Number of ordinary shares out-standing[1]	Share capital	Share premium	Retained earnings	Other reserves (Note 22)	Total attribut-able to equity holders of the parent	Non-controlling interest	Total equity
Balance at January 1, 2018	40,033,921	400	222,322	173,380	38,030	434,132	-	434,132
Effect of adoption of new accounting standards (Note 2)	-	-	-	(6,188)	-	(6,188)	-	(6,188)
Balance at January 1, 2018 adjusted	40,033,921	400	222,322	167,192	38,030	427,944	-	427,944
Currency translation differences	-	-	-	-	7,058	7,058	-	7,058
Actuarial gain (loss)	-	-	-	-	425	425	-	425
Unrealized hedging results	-	-	-	-	(835)	(835)	-	(835)
Other comprehensive income for the year	-	-	-	-	6,648	6,648	-	6,648
Net income	-	-	-	136,256	-	136,256	-	136,256
Total comprehensive income for the year	-	-	-	136,256	6,648	142,904	-	142,904
Dividend paid to owners of the Company	-	-	-	(174,018)	-	(174,018)	-	(174,018)
Legal reserve	-	-	-	(3,571)	3,571	-	-	-
Equity-settled share-based payments	-	-	9,991	-	-	9,991	-	9,991
Purchase of treasury shares	-	-	(35,467)	-	-	(35,467)	-	(35,467)
Deferred tax convertible	-	-	834	-	-	834	-	834
Stock split[2]	40,033,921	400	(400)	-	-	-	-	-
Balance at December 31, 2018	**80,067,842**	**800**	**197,280**	**125,859**	**48,249**	**372,188**	**-**	**372,188**
Balance at January 1, 2017	40,033,921	400	224,482	60,722	57,807	343,411	1,626	345,037
Currency translation differences	-	-	-	-	(17,650)	(17,650)	(107)	(17,757)
Actuarial gain (loss)	-	-	-	-	467	467	-	467
Unrealized hedging results	-	-	-	-	1,013	1,013	-	1,013
Other comprehensive income for the year	-	-	-	-	(16,170)	(16,170)	(107)	(16,277)
Net income	-	-	-	172,991	-	172,991	164	173,155
Total comprehensive income for the year	-	-	-	172,991	(16,170)	156,821	57	156,878
Dividend paid to owners of the Company	-	-	-	(65,302)	-	(65,302)	-	(65,302)
Legal reserve	-	-	-	3,607	(3,607)	-	-	-
Equity-settled share-based payments	-	-	6,863	-	-	6,863	-	6,863
Purchase of treasury shares	-	-	(22,811)	-	-	(22,811)	-	(22,811)
Equity component convertible	-	-	13,788	-	-	13,788	-	13,788
Purchase of non-controlling interest	-	-	-	1,362	-	1,362	(1,683)	(321)
Balance at December 31, 2017	**40,033,921**	**400**	**222,322**	**173,380**	**38,030**	**434,132**	**-**	**434,132**

[1] The outstanding number of ordinary shares includes 6,498,231 (after two for one stock split) and 2,758,382 (before two for one stock split) treasury shares at December 31, 2018 and December 31, 2017, respectively.
[2] At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares.

Consolidated Statement of Cash Flows

(euro in thousands)	Note	Year ended December 31, 2018	2017
Cash flows from operating activities			
Income before income tax		154,944	199,211
Adjustments to reconcile income before income tax to net cash flows			
Depreciation, amortization and impairment	9, 11	15,008	13,364
Share-based payment expense	21	9,991	6,863
Financial expense, net	28	17,784	10,222
Curtailment gain	21	(832)	-
Other non-cash items		-	11
Effects on changes in assets and liabilities			
Decrease (increase) in trade receivables		49,938	(70,777)
Decrease (increase) in inventories		9,295	(18,678)
Increase (decrease) in trade payables		(30,687)	25,875
Changes in provisions		(2,963)	3,952
Changes in other working capital		(14,342)	5,114
		208,136	175,157
Interest received		23	423
Interest paid		(4,615)	(3,474)
Income tax paid		(19,432)	(3,953)
Net cash provided by operating activities		**184,112**	**168,153**
Cash flows from investing activities			
Capital expenditures	9, 11	(6,573)	(5,034)
Capitalized development expenditures	11	(11,449)	(6,662)
Investment in deposits	4	(180,000)	(25,000)
Repayment of deposits		-	105,000
Net cash provided by (used in) investing activities		**(198,022)**	**68,304**
Cash flows from financing activities			
Proceeds from (payments of) bank lines of credit	19	1,070	(10,113)
Payments on debts and financial leases	19	(9,771)	(2,166)
Proceeds from Convertible Notes		-	172,281
Purchase treasury shares		(35,467)	(23,500)
Dividend paid to shareholders		(174,018)	(65,302)
Purchase minority interest		(321)	-
Net cash provided by (used in) financing activities		**(218,507)**	**71,200**
Net change in cash and cash equivalents		(232,417)	307,657
Effect of changes in exchange rates on cash and cash equivalents		150	(4,641)
Cash and cash equivalents at beginning of the period	3	527,806	224,790
Cash and cash equivalents at end of the period	3	**295,539**	**527,806**

Notes to the Consolidated Financial Statements

1. Basis of presentation

General
BE Semiconductor Industries N.V. ("Besi" or "the Company") was incorporated in the Netherlands in May 1995 as the holding company for a worldwide business engaged in the development, production, marketing and sales of back-end equipment for the semiconductor industry. BE Semiconductor Industries N.V.'s principal operations are in the Netherlands, Austria, Switzerland, Malaysia, Singapore and China. BE Semiconductor Industries N.V.'s principal executive office is located at Ratio 6, 6921 RW Duiven, the Netherlands. Statutory seat of the Company is Amsterdam; number at Chamber of Commerce is 09092395.

The Consolidated Financial Statements of BE Semiconductor Industries N.V. for the year ended December 31, 2018, were authorized for issue in accordance with a resolution of the directors on February 19, 2019. The Consolidated Financial Statements of the Company as at December 31, 2018 will be presented to the Annual General Meeting of Shareholders for their adoption on April 26, 2019.

Statement of compliance
The Company's Consolidated Financial Statements have been prepared in accordance with International Financial Reporting Standards ("IFRS") as adopted by the European Union. They also comply with the financial reporting requirements included in section 9 of Book 2 of the Netherlands Civil Code, as far as applicable.

This is the first set of the Company's annual financial statements in which IFRS 15 Revenue from Contracts with Customers and IFRS 9 Financial Instruments have been applied. Changes to significant accounting policies are described in Note 2.

2. Summary of significant accounting principles

Presentation
The accompanying Consolidated Financial Statements include the accounts of BE Semiconductor Industries N.V. and its consolidated subsidiaries (collectively, "the Company"). The financial statements are presented in thousands of euro, rounded to the nearest thousand, unless stated otherwise. The accounting principles which the Company uses to prepare the Consolidated Financial Statements are based on historical cost, unless stated otherwise. Exceptions to the historical cost basis include derivative financial instruments and share-based compensation which are based on fair value. In addition, for pensions and other post-retirement benefits, actuarial present value calculations are used.

At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares. Unless otherwise noted, impacted amounts and share and per share information included in the financial statements and notes thereto have been retroactively adjusted for the stock split as if such stock split occurred on the first day of the first period presented. Certain amounts in the notes to the financial statements may be slightly different than previously reported due to rounding of fractional shares as a result of the stock split.

Principles of consolidation
The Consolidated Financial Statements comprise the financial statements of BE Semiconductor Industries N.V. and its subsidiaries as at December 31, 2018. Subsidiaries are entities controlled by the Company. The Company controls an entity when it is exposed to, or has right to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the Consolidated Financial Statements from the date on which control commences until the date on which control ceases. The financial statements of the subsidiaries are prepared for the same reporting period as the parent company, using consistent accounting policies. All intra-group balances, income and expenses and unrealized gains and losses resulting from intra-group transactions are eliminated in full. Accounting policies, as set out below, have been applied consistently for all periods presented in these Consolidated Financial Statements and by all subsidiaries.

Non-controlling interests are measured at their proportionate share of the acquiree's identifiable net assets at the acquisition date. Changes in the Company's interests in a subsidiary that do not result in a loss of control are accounted for as equity transactions.

On the loss of control, the Company derecognizes the assets and liabilities of the subsidiary, any non-controlling interests and the other components of equity related to the subsidiary. Any surplus or deficit arising on the loss of control is recognized in profit or loss. If the Company retains any interest in the previous subsidiary, then such interest is measured at fair value at the date that control is lost.

As of December 31, 2018 and 2017, the following subsidiaries are included in the accompanying Consolidated Financial Statements:

Name	Location and country of incorporation	Percentage of ownership
BE Semiconductor Industries USA, Inc.	Chandler, Arizona, USA	100%
BE Semiconductor Industries Holding GmbH	Radfeld, Austria	100%
Besi USA, Inc.	Chandler, Arizona, USA	100%
Besi Singapore Pte. Ltd.	Singapore, Singapore	100%
Besi Korea Ltd.	Seoul, South Korea	100%
Besi Asia Pacific Holding B.V.	Duiven, the Netherlands	100%
Besi Philippines, Inc.	Muntinlupa City, Philippines	100%
Besi Netherlands B.V.	Duiven, the Netherlands	100%
Fico International B.V.	Duiven, the Netherlands	100%
Besi Leshan Co., Ltd.	Leshan, China	100%
Besi APac Sdn. Bhd.	Shah Alam, Malaysia	100%[1]
ASM Fico (F.E.) Sdn. Bhd.	Shah Alam, Malaysia	99.9%[2]
Fico Hong Kong Ltd.	Hong Kong, China	100%
Meco International B.V.	Drunen, the Netherlands	100%
Meco Equipment Engineers B.V.	Drunen, the Netherlands	100%
Besi North America, Inc.	Chandler, Arizona, USA	100%
Datacon Eurotec GmbH i.L.	Berlin, Germany	100%
Datacon Beteiligungs GmbH	Radfeld, Austria	100%
Besi Austria GmbH	Radfeld, Austria	100%
Esec International B.V.	Duiven, the Netherlands	100%
Besi Switzerland AG	Steinhausen, Switzerland	100%
Esec China Financial Ltd.	Hong Kong, China	100%
Besi (Shanghai) Trading Co., Ltd.	Shanghai, China	100%
Besi Spares and Tooling AG	Steinhausen, Switzerland	100%

[1] In order to comply with local corporate law, a non-controlling shareholding (less than 0.1%) is held by Company Management.
[2] In order to comply with local corporate law, a non-controlling shareholding is held by Company Management.

All intercompany profits, transactions and balances have been eliminated in the consolidation.

Foreign currency translation
The Consolidated Financial Statements are presented in euros, which is the parent company's functional and presentation currency. Each entity in the group determines its own functional currency and items included in the financial statements of each entity are measured using that functional currency. The principal exchange rates against the euro used in preparing the Consolidated Statement of Financial Position and the Consolidated Statement of Comprehensive Income are:

	Consolidated Statement of Financial Position		Consolidated Statement of Comprehensive Income	
	2018	2017	2018	2017
US dollar	1.14	1.20	1.18	1.12
Swiss franc	1.13	1.17	1.16	1.11
Malaysian ringgit	4.73	4.86	4.76	4.84
Chinese yuan	7.87	7.80	7.80	7.60

Transactions in foreign currencies are initially recorded at the functional currency rate ruling at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies are translated at the functional currency rate of exchange ruling at the balance sheet date. All differences are accounted for into the Consolidated Statement of Comprehensive Income. Non-monetary items that are measured in terms of historical cost in a foreign currency are translated using the exchange rates as at the dates of the initial transactions. Non-monetary items measured at fair value in a foreign currency are translated using the exchange rates at the date when the fair value is determined. Any goodwill arising on the acquisition of a foreign operation and any fair value adjustments to the carrying amounts of assets and liabilities arising on the acquisition are treated as assets and liabilities of the foreign operation and translated at the closing rate. The assets and liabilities of foreign operations are translated into euros at the rate of exchange ruling at the balance sheet date and their Statement of Comprehensive Income is translated at the weighted average exchange rates for the year. The exchange differences arising on the translation of assets and liabilities are recognized in other comprehensive income ("OCI"), and presented as legal currency translation adjustment in equity. On disposal of a foreign entity, the deferred cumulative amount recognized in equity relating to that particular foreign operation is recognized in the Consolidated Statement of Comprehensive Income.

Changes in accounting policies
Except for the changes below, the Company has consistently applied the accounting policies to all periods presented in these Consolidated Financial Statements.

The Company has initially applied IFRS 9 and IFRS 15 as from January 1, 2018.
A number of other new standards and amendments are also effective as from January 1, 2018 but they do not have a material effect on the Company's financial statements. These new standards and amendments are as follows:
- Classification and Measurement of Share-based Payment Transactions (Amendments to IFRS 2)
- Annual Improvements to IFRSs 2014–2016 Cycle (Amendments to IFRS 1 and IAS 28)
- IFRIC 22 Foreign Currency Transactions and Advance Consideration

Due to the transition methods chosen by the Company in applying these standards, comparative information throughout these financial statements has not been restated to reflect the requirements of the new standards.

IFRS 15 – Revenue from Contracts with Customers
IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces IAS 18 Revenue, IAS 11 Construction Contracts and related interpretations. Under IFRS 15, revenue is recognized when a customer obtains control of the goods or services.

The Company adopted IFRS 15 using the modified retrospective method of adoption with the date of initial application of January 1, 2018. Under this method, the standard can be applied either to all contracts at the date of initial application or only to contracts that are not completed at this date. The Company elected to apply the standard only to contracts that are not completed at this date. The cumulative effect of initially applying IFRS 15 is recognized at the date of initial application as an adjustment to the opening balance of retained earnings. Based on detailed analysis in the course of 2018 an adjustment was identified in line with the IFRS 15 requirements and recorded to the opening balance per January 1, 2018.

The following table summarises the impact, net of tax, of transition to IFRS 15 on retained earnings at January 1, 2018.

(euro in thousands)	Note	Impact of adopting IFRS 15 on opening balance
Retained earnings		
Recognition of contract liabilities under IFRS 15	18, 24	(9,649)
Adjustment to warranty provision	15	2,653
Related tax effect		808
Impact January 1, 2018		**(6,188)**

In certain non-standard contracts, the Company provides extended warranties. Under IFRS 15, warranties are accounted for as a service-type warranty qualifying as a separate performance obligations to which the Company allocates a portion of the transaction price. Upon adoption of IFRS 15, the Company recognized Contract liabilities of € 9.6 million related to unfulfilled extended warranties as at January 1, 2018. This amount is partly offset by a release of the previously recorded warranty provision commitments. As a result, the net impact after tax in equity as at January 1, 2018 amounts to € 6.2 million.

IFRS 9 – Financial instruments
IFRS 9 sets out requirements for recognizing and measuring financial assets, financial liabilities and some contracts to buy or sell non-financial items. This standard replaces IAS 39 Financial Instruments: Recognition and Measurement. The requirements of IFRS 9 represent a significant change from IAS 39. The Company applied IFRS 9 prospectively, with an initial application date of January 1, 2018. The Company has not restated the comparative information, which continues to be reported under IAS 39. The new standard brings fundamental changes to the accounting for financial assets and to certain aspects of the accounting for financial liabilities. Additionally, the Company has adopted consequential amendments to IFRS 7 Financial Instruments: These are applied to disclosures about 2018 but have not been generally applied to comparative information.

The impact, net of tax, of transition to IFRS 9 on the opening balance reserves and retained earnings is considered immaterial, therefore no opening balance sheet adjustment has been recognized and the Company accounts for IFRS 9 as of January 1, 2018.

The key changes to the Company's accounting policies resulting from its adoption of IFRS 9 are summarized below.

Classification and measurement of financial assets and financial liabilities
IFRS 9 contains three principal classification categories for financial assets: (i) measured at amortized cost, (i) measured at fair value through other comprehensive income ("FVOCI") and (iii) measured at fair value through profit and loss ("FVTPL"). The classification of financial assets under IFRS 9 is generally based on the business model in which a financial asset is managed and its contractual cash flow characteristics. The assessment of the Company's business model was made as of the date of initial application, January 1, 2018. The assessment of whether contractual cash flows on debt instruments are solely comprised of principal and interest was made based on the facts and circumstances as at the initial recognition of the assets. IFRS 9 eliminates the previous IAS 39 categories of held to maturity, loans and receivables and available for sale. Under IFRS 9, derivatives embedded in contracts where the host is a financial asset in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification. IFRS 9 largely retains the existing requirements in IAS 39 for the classification and measurement of financial liabilities. The adoption of IFRS 9 has not had a significant effect on the Company's accounting policies related to financial liabilities and derivative financial instruments (for derivatives that are used as hedging instruments, see below).

For an explanation of how the Company classifies and measures financial instruments and accounts for related gains and losses under IFRS 9, reference is made to Note 30 and to the accounting policy Financial Assets and Liabilities starting page 88.

The following table and the accompanying notes below explain the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 for each class of the Company's financial assets and financial liabilities as at January 1, 2018. The effect of adopting IFRS 9 on the carrying amounts of financial assets at January 1, 2018 relates solely to the new impairment requirements which were considered immaterial and therefore not adjusted in the opening balance sheet equity.

(euro in thousands)	Note	Original classification under IAS 39	New classification under IFRS 9	Carrying amount IAS 39	Carrying amount IFRS 9
Cash and cash equivalents	3	Loans and receivables	Amortized cost	527,806	527,806
Trade receivables	5	Loans and receivables	Amortized cost	151,654	151,654
Forward exchange contracts	7	Fair value through profit and loss	Fair value through profit and loss	2,647	2,647
Other receivables	7	Loans and receivables	Amortized cost	4,867	4,867
Total financial assets				**686,974**	**686,974**

(euro in thousands)	Note	Original classification under IAS 39	New classification under IFRS 9	Carrying amount IAS 39	Carrying amount IFRS 9
Notes payable to banks	14	Other financial liabilities	Other financial liabilities	1,742	1,742
Trade payables	16	Other financial liabilities	Other financial liabilities	62,721	62,721
Forward exchange contracts	17	Fair value through profit and loss	Fair value through profit and loss	685	685
Other payables	17	Other financial liabilities	Other financial liabilities	28,612	28,612
Long-term debt and financial leases	19	Other financial liabilities	Other financial liabilities	267,274	267,274
Current portion of long-term debt and financial leases	19	Other financial liabilities	Other financial liabilities	11,228	11,228
Total financial liabilities				**372,262**	**372,262**

Impairment of financial assets
IFRS 9 replaces the "incurred loss" model in IAS 39 with an expected credit loss ("ECL") model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVOCI, but not to investments in equity instruments. Under IFRS 9, credit losses are recognized earlier than under IAS 39, see Note 30.

For assets in the scope of the IFRS 9 impairment model, impairment losses are generally expected to increase and become more volatile. The Company has determined that the application of IFRS 9's impairment requirements at January 1, 2018 results has no material impact. Additional information about how the Company measures the allowance for impairment is described in Note 30.

Hedge accounting
The Company has elected to adopt the new general hedge accounting model in IFRS 9. This requires the Company to ensure that hedge accounting relationships are aligned with its risk management objectives and strategy and to apply a more qualitative and forward-looking approach to assessing hedge effectiveness. All hedging relationships designated under IAS 39 at December 31, 2017 met the criteria for hedge accounting under IFRS 9 at January 1, 2018 and are therefore regarded as continuing hedging relationships.

The Company uses forward foreign exchange contracts to hedge the variability in cash flows arising from changes in foreign exchange rates relating to foreign currency receivables, sales and other balance sheet items. Besi is not applying cost of hedging (deferring the fair value change of the forward points in equity) and therefore fair value changes not related to spot to spot revaluation are directly reflected in the profit and loss account.

For an explanation of how the Company applies hedge accounting under IFRS 9, see Note 30.

Cash and cash equivalents
Cash and cash equivalents consist of highly liquid investments with an original maturity date at the date of acquisition of three months or less. Cash and cash equivalents are measured at amortized cost. Money market funds are also included as cash equivalents. The money market funds are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

Deposits
Deposits consist of cash and cash equivalents which have been placed on deposit with a maturity between 3 and 24 months.

Trade receivables and other receivables
Trade and other receivables are initially measured at fair value and subsequently at amortized cost less any impairment loss. With the implementation of IFRS 9 as from January 1, 2018, the Company applies the expected credit loss model to determine any trade receivables impairment losses. The change from IAS 39 to IFRS 9 for determination has not had a material impact on the determination of the Company's impairment losses for trade receivables. The trade receivables do not contain a significant financing component (in accordance with IFRS 15) and therefore the loss allowance is always measured as equal to lifetime expected credit losses. The Company uses a provisioning matrix to calculate the level of the provision and measures lifetime expected credit losses at percentages of amounts outstanding for current trade receivables, 30 days past due, 60 days past due, 90 days past due and over 120 days past due. The total accounts receivable impairment consists of two elements: provision if and when required based on Company estimates and additional provision as determined by the use of the provision matrix. Impairment losses and any subsequent reversals are recognized in the Consolidated Statement of Comprehensive Income.

Inventories
Inventories are stated at the lower of cost (using moving weighted average costs) or net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and costs to make the sales. Cost includes net prices paid for materials purchased and all expenses to bring the inventory to its current location, charges for freight and custom duties, production labor costs and factory overhead.

Property, plant and equipment
Property, plant and equipment are stated at cost less accumulated depreciation and impairment charges. Costs include expenditures that are directly attributable to the acquisition of the asset, including financing expenses of capital investment projects under construction.

Depreciation is calculated using the straight-line method, based on the following estimated useful lives:

Category	Estimated useful life
Land	Not depreciated
Buildings	15-30 years
Leasehold improvements[1]	10-15 years
Machinery and equipment	2-10 years
Office furniture and equipment	3-10 years

[1] Leasehold improvements are depreciated over the shorter of the lease term or economic life of the asset.

Where parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items of property, plant and equipment. The residual value, if not insignificant, is reassessed annually.

The Company recognizes in the carrying amount of an item of property, plant and equipment the cost of replacing part of such an item when that cost is incurred if it is probable that the future economic benefit relating to that subsequent expenditure will flow to the Company and the cost can be measured reliably. Other costs are recognized in the Consolidated Statement of Comprehensive Income as expense, as incurred.

Leased assets
Assets acquired under financial leases are included in the Statement of Financial Position at the present value of the minimum future lease payments and are depreciated over the shorter of the lease term or their estimated economic lives. A corresponding liability is recorded at the inception of the financial lease and the interest element of financial leases is charged to interest expense. Operating lease payments are recognized as an expense in the Consolidated Statement of Comprehensive Income on a straight-line basis over the lease term.

Intangible assets
Intangible assets are valued at cost less accumulated amortization and impairment charges. All intangible assets are tested for impairment whenever there is an indication that the intangible asset may be impaired. Other intangible assets, such as goodwill and intangible assets not yet in use, are not amortized, but tested for impairment annually. In cases where the carrying value of the intangibles exceeds the recoverable amount, an impairment charge is recognized in the Consolidated Statement of Comprehensive Income.

Business combinations and goodwill
Business combinations are accounted for using the acquisition method as at the acquisition date, which is the date on which control is transferred to the Company. Control is the power to govern the financial and operating policies of an entity so as to obtain benefits from its activities. In assessing control, the Company takes into consideration potential voting rights that currently are exercisable.

The Company measures goodwill at the acquisition date as:
- The fair value of the consideration transferred; plus
- The recognized amount of any non-controlling interests in the acquiree; plus
- If the business combination is achieved in stages, the fair value of the existing equity interest in the acquiree; less
- The net recognized amount (generally fair value) of the identifiable assets acquired and liabilities assumed.

Costs related to the acquisition, other than those associated with the issue of debt or equity securities, that the Company incurs in connection with a business combination are expensed as incurred.

Any contingent consideration payable is recognized at fair value at the acquisition date. If the contingent consideration is classified as equity, it is not measured and settlement is accounted for within equity. Otherwise, subsequent changes to fair value of the contingent consideration are recognized in profit or loss.

Capitalized development expenses
Expenditures for research activities, undertaken with the prospect of gaining new scientific or technical knowledge and understanding, are recognized in the Consolidated Statement of Comprehensive Income as an expense, as incurred. Expenditure for development activities, whereby research findings are applied to a plan or design for the production of new or substantially improved products and processes, is capitalized if the product or process is technically and commercially feasible, the Company has the intention and sufficient resources to complete development, the Company has the ability to use or sell the development and the ability to reliably measure the expenditure attributable to the development during its process.

The expenditure capitalized includes the cost of materials, direct labor and other directly attributable costs. Other development expenditures are recognized in the Consolidated Statement of Comprehensive Income as an expense, as incurred. Government grants to compensate for the cost of an asset are deducted from the cost of the related asset. Capitalized development expenditures are stated at cost less accumulated amortization and impairment losses.

Other identifiable intangible assets
Other intangible assets that are acquired by the Company are stated at cost (i.e. fair value of the consideration given) at the date of acquisition less accumulated amortization and impairment losses.

Amortization
Amortization is charged to the Consolidated Statement of Comprehensive Income on a straight-line basis over the estimated useful lives of intangible assets unless such lives are indefinite. Amortization of capitalized development expenses and other intangible assets commence from the date they are available for use.

The estimated useful lives are as follows:

Category	Estimated useful life
Software	3 years
Development expenses	3-7 years

The Company does not have any other intangible assets with indefinite lives.

The amortization is recognized in the Consolidated Statement of Comprehensive Income in cost of sales, selling, general and administrative expenses and research and development expenses.

Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets are reviewed at each year's end balance sheet date to determine whether there is any indication of impairment. If such indication exists, the asset's recoverable amount is estimated. For goodwill and intangible assets that are not yet available for use, the recoverable amount is estimated at each balance sheet date.

An impairment loss is recognized whenever the carrying amount of an asset or its cash-generating unit exceeds its recoverable amount. Impairment losses are recognized in the Consolidated Statement of Comprehensive Income. Impairment losses recognized in respect of cash-generating units are allocated first to reduce the carrying amount of any goodwill allocated to cash-generating units (group of units) and then to reduce the carrying amount of the other assets in the unit (group of units) on a pro-rata basis.

Calculation of recoverable amount

The recoverable amount of other assets is the higher of their fair value less costs of disposal and value-in-use. In assessing value-in-use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. For an asset that does not generate largely independent cash inflows, the recoverable amount is determined for the cash-generating unit to which the asset belongs.

Reversals of impairment

An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. Impairment losses in respect of goodwill are not reversed. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

Other non-current assets

Funds with insurance companies for pension liability are stated at fair value.

Other current liabilities

Other current liabilities consist of notes payable to banks, trade payables and other payables and are initially measured at fair value and subsequently at amortized cost, using the effective interest method.

Financial assets and liabilities

All financial assets and liabilities have been valued in accordance with IFRS 9, replacing IAS 39 as from January 1, 2018, unless indicated otherwise.

Financial assets recognition and derecognition

Non-derivative financial assets are recognized initially at fair value plus directly attributable transaction costs.

A financial asset (or, where applicable, a part of a financial asset or part of a group of similar financial assets) is derecognized when:
- The rights to receive cash flows from the asset have expired.
- The Company retains the right to receive cash flows from the asset, but has assumed an obligation to pay them in full without material delay to a third party under a "pass-through" arrangement.
- The Company has transferred its rights to receive cash flows from the asset and either (i) has transferred substantially all the risks and rewards of the asset, or (ii) has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.
- When the Company has transferred its rights to receive cash flows from an asset and has neither transferred nor retained substantially all the risks and rewards of the asset nor transferred control of the asset, the asset is recognized to the extent of the Company's continuing involvement in the asset. Continuing involvement that takes the form of a guarantee over the transferred asset is measured at the lower of the original carrying amount of the asset and the maximum amount of consideration that the Company could be required to repay.

Purchases or sales of financial assets that require delivery of assets within a time frame established by regulation or convention in the marketplace are recognized on the trade date, i.e. the date that the Company commits to purchase or sell the asset.

Financial assets – Policy applicable as from January 1, 2018

On initial recognition, a financial asset is classified as measured at: amortized cost; FVOCI – debt investment; FVOCI – equity investment; or FVTPL.

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

A financial asset is measured at amortized cost if it meets both the following conditions and is not designated as at FVTPL:

- It is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

A debt investment is measured at FVOCI if it meets both of the following conditions and is not designated as at FVTPL:

- It is held within business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- Its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

On initial recognition of an equity investment that is not held for trading, the Company may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income. This election is made on an investment-by-investment basis. All financial assets not classified as measured at amortized cost or FVOCI as described above are measured at FVTPL. This includes all derivative financial assets. On initial recognition, the Company may irrevocably designate a financial asset that otherwise meets the requirements to be measured at amortized cost or at FVOCI as at FVTPL if doing so eliminates or significantly reduces an accounting mismatch that would otherwise arise.

Business model assessment – Policy applicable as from January 1, 2018

The Company makes an assessment of the objective of the business model in which a financial asset is held at portfolio level because this best reflects the way the business is managed and information is provided to management. The information considered includes the stated policies and objectives for the portfolio and the operation of those policies in practice, how the performance of the portfolio is evaluated and reported to the Company's management, the risks that affect the performance of the business model and how those risks are managed, how managers of the business are compensated and the frequency, volume and timing of sales of financial assets in prior periods, the reasons for such sales and expectations about future sales activity.

Financial assets that are held for trading or are managed and whose performance is evaluated on a fair value basis are measured at FVTPL.

Assessment whether contractual cash flows are solely payments of principal and interest – Policy applicable as from January 1, 2018

For the purposes of this assessment, "principal" is defined as the fair value of the financial asset on initial recognition. "Interest" is defined as consideration for the time value of money and for the credit risk associated with the principal amount outstanding during a particular period of time and for other basic lending risks and costs (e.g. liquidity risk and administrative costs), as well as a profit margin. In assessing whether the contractual cash flows are solely payments of principal and interest, the Company considers the contractual terms of the instrument. This includes assessing whether the financial asset contains a contractual term that could change the timing or amount of contractual cash flows such that it would not meet this condition.

Subsequent measurement and gains and losses - Policy applicable as from January 1, 2018

Financial assets at FVTPL: These assets are subsequently measured at fair value. Net gains and losses, including any interest or dividend income, are recognized in profit or loss. Financial assets at amortized cost: These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairment are recognized in profit or loss. Any gain or loss on derecognition is recognized in profit or loss. Debt investments at FVOCI: These assets are subsequently measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairment are recognized in profit or loss. Other net gains and losses are recognized in OCI. On derecognition, gains and losses accumulated in OCI are reclassified to profit or loss. Equity investments at FVOCI: These assets are subsequently measured at fair value. Dividends are recognized as income in profit or loss unless the dividend clearly represents a recovery of part of the cost of the investment. Other net gains and losses are recognized in OCI and are never reclassified to profit or loss.

Reclassification - Policy applicable as from January 1, 2018

Financial assets are not reclassified subsequent to their initial recognition unless the Company changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets – Policy applicable before January 1, 2018

The Company classified its financial assets into one of the following categories:

- Loans and receivables: Measured at amortized cost using the effective interest method.
- Held-to-maturity financial assets: Measured at amortized cost using the effective interest method.
- Available-for-sale financial assets: Measured at fair value and changes therein, other than impairment losses, interest income and foreign currency differences on debt instruments, were recognized in OCI and accumulated in the fair value reserve. When these assets were derecognized, the gain or loss accumulated in equity was reclassified to profit or loss.
- Financial assets at FVTPL: Measured at fair value and changes therein, including any interest or dividend income, were recognized in profit or loss. However, see Note 30 for derivatives designated as hedging instruments.

Impairment of financial assets

Impairment – Policy applicable as from January 1, 2018

The Company recognizes loss allowances for expected credit losses ("ECLs") on the following:

- Financial assets measured at amortized cost;
- Debt investments measured at FVOCI; and
- Contract assets.

The Company measures loss allowances at an amount equal to lifetime ECLs, expect for debt securities that are determined to have low credit risk at the reporting date and other debt securities and bank balances for which credit risk has not increased significantly since initial recognition, which are measured at 12-month ECLs. 12-month ECLs are the portion of ECL that result from default events on a financial instrument that are possible within the 12 months after the reporting date. Financial instruments for which a 12-month ECL is recognized are referred to as "Stage 1 financial instruments". Life-time ECLs are the ECLs that result from all possible default events over the expected life of the financial instrument. Financial instruments for which a lifetime ECL is recognized but which are not credit-impaired are referred to as "Stage 2 financial instruments".

Loss allowances for trade receivables and contract assets are always measured at an amount equal to lifetime ECLs. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Company considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Company's historical experience and informed credit assessment and including forward-looking information.

Measurement of ECLs

ECLs are a probability-weighted estimate of credit losses. Credit losses are measured as the present value of all cash shortfalls (i.e. the difference between the cash flows due to the entity in accordance with the contract and the cash flows that the Company expects to receive). ECLs are discounted at the effective interest rate of the financial asset.

Credit-impaired financial assets

At each reporting date, the Company assesses whether financial assets carried at amortized cost and debt securities at FVOCI are credit-impaired. A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

Presentation of allowance for ECL in the Statement of Financial Position

Loss allowances for financial assets measured at amortized cost are deducted from the gross carrying amount of the assets. For debt securities at FVOCI, the loss allowance is charged to profit or loss and is recognized in OCI.

Write-off

The gross carrying amount of a financial asset is written off when the Company has no reasonable expectations of recovering a financial asset in its entirety or a portion thereof. The Company individually makes an assessment with respect to the timing and amount of write-off based on whether there is a reasonable expectation of recovery. The Company expects no significant recovery from the amount written off. However, financial assets that are written off could still be subject to enforcement activities in order to comply with the Company's procedures for recovery of amounts due.

Impairment - Policy applicable before January 1, 2018

The Company assesses at each reporting date whether there is any objective evidence that a financial asset or a group of financial assets is impaired. A financial asset or a group of financial assets is deemed to be impaired if and only if, there is objective evidence of impairment as a result of one or more events that have occurred after the initial recognition of the asset (an incurred "loss event") and that loss event has an impact on the estimated future cash flows of the financial asset of the group of assets that can be reliably estimated. Evidence of impairment may include indicators that the debtor or group of debtors is experiencing significant financial difficulty, default or delinquency in interest or principal payments, the probability that they will enter bankruptcy or other financial reorganization and where observable data indicate that there is a measurable decrease in the estimated future cash flows, such as changes in areas or economic conditions that correlate with defaults.

Derivative financial instruments and hedge accounting – Policy applicable before and as from January 1, 2018
In line with its hedging strategy, the Company uses derivative financial instruments to hedge its exposure to foreign currency exchange rate fluctuations relating to operational activities denominated in foreign currencies. In accordance with its treasury and risk policy, the Company does not hold or issue derivative financial instruments for trading purposes. The Company uses hedge accounting. However, derivatives that do not qualify for hedge accounting are accounted for as trading instruments.

The Company recognizes derivative financial instruments initially at fair value; attributable transaction costs are recognized in profit or loss as incurred. Subsequent to initial recognition, derivative financial instruments are measured at fair value. The gain or loss on remeasurement to fair value is recognized immediately in the Consolidated Statement of Comprehensive Income in financial income (expense). Where derivatives qualify for hedge accounting, recognition of any gain or loss depends on the nature of the item being hedged.

The Company applies the cash flow hedge accounting model. In this hedging model, the effective part of a hedge transaction is reported as a component of other comprehensive income, which is reclassified to earnings in the same period(s) in which the hedged forecasted transaction affects earnings. The ineffective part of the hedge is recognized directly in the Consolidated Statement of Comprehensive Income in financial income (expense).

The implementation of IFRS 9 as from January 1, 2018 has not had an impact on the cash flow hedge accounting applied by the Company compared to prior year cash flow hedge accounting under IAS 39.

Financial liabilities – Policy applicable before and as from January 1, 2018
Financial liabilities are classified as measured at amortized cost or FVTPL. A financial liability is classified as at FVTPL if it is classified as held-for-trading, it is a derivative or it is designated as such on initial recognition. Financial liabilities at FVTPL are measured at fair value and net gains and losses, including any interest expense, are recognized in profit or loss. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expense and foreign exchange gains and losses are recognized in profit or loss. Any gain or loss on derecognition is also recognized in profit or loss.

Non-derivative financial liabilities are initially measured at fair value and subsequently at amortized cost, using the effective interest method. The Company's financial liabilities include trade and other payables, bank overdrafts, loans and borrowings and compound financial instruments, such as Convertible Notes.

A financial liability is derecognized when the obligation under the liability is discharged or cancelled or expired. When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the Consolidated Statement of Comprehensive Income.

Compound financial instruments issued by the Company comprise Convertible Notes denominated in euro that can be converted to share capital at the option of the holder, when the number of shares to be issued is fixed and does not vary with changes in fair value. The liability component of a compound financial instrument is recognized initially at the fair value of a similar liability that does not have an equity conversion option. The equity component is recognized initially at the difference between the fair value of the compound financial instrument as a whole and the fair value of the liability component. Any directly attributable transaction costs are allocated to the liability and equity components in proportion to their initial carrying amounts. Subsequent to initial recognition, the liability component of a compound financial instrument is measured at amortized cost using the effective interest method. The equity component of a compound financial instrument is not remeasured. Interest related to the financial liability is recognized in profit or loss. On conversion, the financial liability is reclassified to equity and no gain or loss is recognized.

Employee benefits

Pension plans
Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

The Company's net obligation in respect of defined benefit pension plans is calculated separately for each plan by estimating the amount of future benefit that employees have earned in return for their service in the current and prior periods; that benefit is discounted to determine its present value, and the fair value of any plan assets is deducted. The Company determines the net interest expense (income) on the net defined benefit liability (asset) for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the annual period to the net defined benefit liability (asset).

The calculation is performed by a qualified actuary using the projected unit credit method. When the calculation results in a benefit to the Company, the recognized asset is limited to the present value of economic benefits available in the form of any future refund from the plan or reductions in future contributions paid to the plan. In order to calculate the present value of economic benefits, consideration is given to any minimum funding requirements that apply to any plan in the Company. An economic benefit is available to the Company if it is realizable during the life of the plan, or on settlement of the plan liabilities.

Remeasurements arising from defined benefit plans comprise actuarial gains and losses, the return on plan assets (excluding interest) and the effect of the asset ceiling (if any, excluding interest). The Company recognizes them immediately in other comprehensive income and all other expenses related to defined benefit plans in employee benefit expenses in profit or loss. When the benefits of a plan are changed, or when a plan is curtailed, the portion of the changed benefit related to past service by employees, or the gain or loss on curtailment, is recognized immediately in profit or loss when the plan amendment or curtailment occurs.

A majority of the Company's Dutch employees participate in a pension plan operated by an industry-wide pension fund, which classifies as a defined contribution plan under IAS 19.

Severance provisions

A provision for severance obligations is recognized in the Statement of Financial Position if the Company is obligated to severance payments, even if future termination of the contract is initiated by the employee. For some of our subsidiaries this is mandatory by law.

Share-based payments

In 2016, the Company adopted the Remuneration Policy 2017-2019 which is mainly a prolongation of the Remuneration Policy 2011-2016 which contains specific conditions for the performance shares awarded to the Board of Management. The Company established the BE Semiconductor Industries N.V. Long-Term Incentive plan for the Board of Management and other employees (the "2014 and the 2017 Framework Incentive Plan"). For more details, reference is made to Note 21.

The grant date fair value of the performance shares granted to Board Members and key employees is measured taking into account the impact of any market performance conditions and non-vesting conditions, but excludes the impact of any service and non-market performance conditions.

The grant date fair value of the equity-settled share-based payment awards is recognized as an employee expense, with a corresponding increase in equity, over the period between the grant date and the vesting date of the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service condition and any non-market performance conditions are expected to be met, such that the amount ultimately recognized as an expense is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

Provisions

A provision is recognized in the Statement of Financial Position when the Company has a present legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material, provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and, where appropriate, the risks specific to the liability.

Warranties

A provision for warranties is recognized when the underlying products or services are sold. The provision is based on historical warranty data and a weighting of all possible outcomes against their associated probabilities.

Restructuring

A provision for restructuring is recognized when the Company has approved a detailed and formal restructuring plan, the restructuring has either commenced or has been announced publicly and is irrevocable. Future operating costs are not provided for.

Revenue recognition – Policy applicable as from January 1, 2018

The Company has initially applied IFRS 15 as from January 1, 2018. Information about the Company's accounting policies and identified performance obligations relating to contracts with customers is provided below and in Note 24.

Significant accounting policy revenue

Revenue is measured on the consideration specified in the contract with a customer and excludes amounts collected on behalf of third parties. The Company recognizes revenue when it transfers control over a product of service to a customer.

Nature of goods and services

The following is a description of principal activities - aggregated into a single reporting segment, the semiconductor's back-end segment - from which the Company generates its revenue.

The main portion of our revenue is derived from contractual arrangements that have multiple deliverables. The Company accounts for individual products and services separately if they are a distinct performance obligation – i.e. if a product or service is separately identifiable from other items in the arrangement and if a customer can benefit from it. The consideration is allocated between separate products and services in the arrangement based on their relative stand-alone selling prices. The relative stand-alone selling prices are determined based on the list prices for products and services that are sold separately or based on the expected costs plus a margin approach. For products and services that are not sold separately, the Company estimates relative stand-alone selling prices using the expected costs plus margin approach.

Products and services	Nature and timing of satisfaction of performance obligations and significant payment terms
Machines Conversion kits and upgrades	After successful internal buy-off, machines are shipped to customers at the following shipping terms: • Ex Works: the customer takes control once the machine leaves the Besi premises and the customer pays for shipping and handling activities; • Free on Board: the customer takes control once the machine is delivered to the carrier (on to the ship in case of sea or to airport in case of air freight) and Besi pays for the shipping and handling activities until the hand-over to the sea or air carrier; • Delivery at Place: the customer takes control once the machine arrives at the customers' premises and Besi pays for the shipping and handling activities. • Revenue is recognized when the customer takes control of the shipped item. • Regular payment terms vary between 30 and 90 days after date of delivery.
Installation, start-up and training services	These services are separate performance obligations and revenue is recognized at the moment of performance of these services. Regular payment terms vary between 30 and 90 days after date of delivery.
Spare parts	Revenue of spare parts is recognized upon shipment to the customer, based on the applicable shipment terms (refer to above). Regular payment terms vary between 30 and 90 days after date of delivery.
Extended warranty	Extended warranty is considered a separate performance obligation under IFRS 15. Revenue for Extended Warranty for a warranty term in excess of the standard warranty term is deferred and recognized over the term of the extended warranty period. Extended warranty, if any, is sold as part of the machine contract.

Determination relative stand-alone selling prices

The Company previously applied the residual value approach to determine relative stand-alone selling prices of the performance obligations. Under IFRS 15 the residual value approach is only allowed in limited circumstances (i.e. in case the selling price is highly variable or uncertain), but in general the observable price (if available), adjusted market assessment approach or expected costs plus margin approach should be applied to determine the relative stand-alone selling prices. The Company is able to estimate a price based on the expected cost plus a margin approach and therefore applies this approach to determine the relative stand-alone selling prices.

Cost to obtain a contract

The Company previously recognized cost to obtain a contract, such as commission fees, as selling, general and administrative expenses when incurred. Under IFRS 15 commission fees when they are incremental - and if they are expected to be recovered – should be capitalized and then amortized consistently with the pattern of revenue for the related contract. However, if the expected amortization period is one year or less, then the commission fee can be expensed when incurred, which practical expedient the Company has applied.

Contract assets and liabilities

Contract assets are recognized according to the Company's rights to consideration for the fulfilled but not yet invoiced performance obligations at the reported date. Contract liabilities are recognized when advanced consideration is received from a customer or when the Company has outstanding performance obligations relating to warranties and installation.

Impact on financial statements

The implementation of IFRS 15 did have an impact on the Consolidated Statement of Comprehensive Income, Consolidated Balance Sheet and Consolidated Statement of Cash Flows as disclosed in Note 24 and in the accounting policy Changes in Accounting Policies – IFRS 15 Revenue from Contracts with Customers on page 84.

The Company applies the practical expedient in IFRS 15.121 and does not disclose information about the remaining performance obligations that have original expected durations of one year or less. The Company applies the practical expedient in IFRS 15.C5(c) and does not disclose the amount of the transaction price allocated to the remaining performance obligations nor an explanation of when the Company expects to recognize that amount.

Revenue recognition – Policy applicable before January 1, 2018
Revenue from the sale of products in the course of ordinary activities is measured at the fair value of the consideration received or receivable, net returns, trade discounts and volume rebates. Revenue is recognized when persuasive evidence exists, usually in the form of an executed sales agreement, that the significant risks and rewards of ownership have been transferred to the buyer, recovery of the consideration is probable, the associated costs and possible return of goods can be estimated reliably, there is no continuing management involvement with the products and the amount of revenue can be measured reliably. Discounts are recognized as a reduction of revenue as the sales are recognized. The timing of the transfers of risks and rewards varies depending on the individual terms of the sales agreement. Revenue related to training and technical support is recognized when the service is rendered. Revenue from the sale of spare parts and materials is recognized when the risk and rewards are transferred to the buyer, which is mostly the case when the goods are shipped.

The main portion of our revenue is derived from contractual arrangements with our customers that have multiple deliverables, such as installation and training services, service contracts and free of charge spares deliveries. The revenue relating to the undelivered elements of the arrangements is deferred until delivery of these elements. Revenue from installation and training services is recognized when the services are completed. Revenue from service contracts is recognized over the term of the contract. Revenue from free of charge spares is recognized when the goods are shipped. Revenue from new technology is deferred until acceptance test at the customer's site has passed.

Subsidies and other governmental credits
Subsidies and other governmental credits to cover research and development costs relating to approved projects are recorded as research and development credits in the period when the research and development costs to which such subsidy or credit relates occurs. If the related development costs are capitalized, the subsidies and other governmental credits will be offset against capitalization.

Net financing expenses and borrowing costs
Net financing costs comprise interest payable on borrowings calculated using the effective interest rate method, foreign exchange gains and losses and gains and losses on hedging instruments that are recognized in the Consolidated Statement of Comprehensive Income. Interest income is recognized in the Consolidated Statement of Comprehensive Income as it accrues, using the effective interest method. The interest expense component of finance lease payments is recognized in the Consolidated Statement of Comprehensive Income using the effective interest rate method. Borrowing costs that are not directly attributable to the acquisition or production of a qualifying asset are recognized in the Consolidated Statement of Comprehensive Income using the effective interest method.

Income taxes
The Company applies the liability method of accounting for taxes. Under the liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carry forwards. Deferred tax assets and liabilities are measured using substantively enactment tax rates expected to apply to taxable income in the years which these temporary differences are expected to be recovered or settled.

The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the Consolidated Statement of Comprehensive Income in the period that includes the enactment date. A deferred tax asset is recognized only to the extent that it is probable that future taxable profits will be available against which the asset can be utilized. Deferred tax assets are reduced to the extent that it is no longer probable that the related tax benefit will be realized.

Segment reporting

Operating segments
The Company is engaged in one line of business, the development, manufacturing, marketing, sales and service of semiconductor assembly equipment for the global semiconductor and electronics industries. The Company identifies three operating segments (Product Groups). These Product Groups are Die Attach, Packaging and Plating. The chief operating decision maker reviews each Product Group in detail and all operational functions are allocated to these Product Groups: 1) Product Marketing, 2) Research and Development, 3) Product Group management, 4) Customer Project management and 5) Operations. Corporate functions (Finance, Legal, Human Resources and Sales & Service) do not qualify as operating segments. Hence, Besi identifies three operating segments which meet the IFRS 8 criteria.

Reportable segment
IFRS 8 allows for operating segments to be aggregated into reportable segments if the operating segments share similar economic characteristics. The Company deems the three operating segments to meet the aggregation criteria, as the nature of the products and services, production processes, classes of customer and methods used to distribute the products and provide services and gross margins are similar. Hence the three Product Groups are aggregated into a single reporting segment; the development, manufacturing, marketing, sales and service of assembly equipment for the semiconductor's back-end segment. The basis for aggregation is explained directly below and as the Company has only one reporting segment all financial segment information can be found in the Consolidated Financial Statements.

Indicators for aggregation into single reporting segment
The similarity of economic characteristics can be evaluated based on future prospects. Within the semiconductor back-end segment the market information is based on VLSI Research, a leading independent industry analyst, forecasts. Industry trends are captured in these forecasts and always used as a source when referring to the future developments (e.g. press releases). Demand for semiconductor devices and expenditures for the equipment required to assemble semiconductors is cyclical, depending in large part on levels of demand worldwide for computing and peripheral equipment, telecommunications devices and automotive and industrial components as well as the production capacity of global semiconductor manufacturers. All operating segments move up or down in the same response to the same positive and negative factors like general economic upturns and downturns, changes in interest rates and currency exchange rates.

The nature of products and services within the Besi group is very much the same, all captured in the semiconductor back-end industry and served by one service organization, which is designing and supporting that equipment.

Furthermore, all production processes are organized as manufacturing and assembly of projects and are mainly produced in our Asian production facilities in Malaysia and China. This means that the production of the different Product Groups shares the same facilities, employees and processes. Also, similar materials are used to produce the systems.

The evaluation of the type or class of customer for products and services leads to the conclusion that the risk exposure profile of the customers is similar because of the fact that all customers are leading US, European and Asian semiconductor manufacturers and assembly subcontractors which in their turn depend on the global market conditions.

One worldwide responsible person for Sales & Customer Support, indicates the centralization of the Sales organization and the method used to distribute our products. The Besi name is used throughout the global operations and the Besi logo has been adopted to be used by all Product Groups. As from January 1, 2013, legal entity names have been changed, amongst others, to put more emphasis on this uniformed global operating, like Besi Austria GmbH, Besi Switzerland AG and Besi Netherlands B.V.

Furthermore, in order to assess performance and to make resource allocation decisions based on sufficient detailed information, the chief operating decision maker must have financial information which covers all of the Product Groups, including corporate functions, meaning full Consolidated Financial Statements. For example, the total external financing of the Besi group is evaluated on consolidated level and not split into business operations.

Accordingly, all information consolidated is the operating segment under IFRS 8, reported in the semiconductor back-end industry.

Significant accounting judgements, estimates and assumptions
The preparation of the Company's Consolidated Financial Statements requires management to make judgements, estimates and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent liabilities, at the reporting date. However, uncertainty about these assumptions and estimates could result in outcomes that could require a material adjustment to the carrying amount of the asset or liability affected in the future.

Judgements
In the process of applying the Company's accounting policies, management has made the following judgements, apart from those involving estimates, that have the most significant effect on the amounts recognized in the Consolidated Financial Statements:

Impairment of non-financial assets
The Company assesses whether there are any indicators of impairment for all non-financial assets at each reporting date. Goodwill and other indefinite life intangibles are tested for impairment annually and at other times when such indicators exist. Other non-financial assets are tested for impairment when there are indicators that the carrying amounts may not be recoverable. When value-in-use calculations are undertaken, management must estimate the expected future cash flows from the asset or cash-generating unit and determine a suitable discount rate in order to calculate the present value of those cash flows. Further details are contained in Notes 9, 10 and 11.

Deferred tax assets

Deferred tax assets are recognized for all unused tax losses to the extent that it is probable that taxable profit will be available against which the losses can be utilized. Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and level of future taxable profits together with future tax planning strategies. Further details are contained in Note 12.

Pension and other post-employment benefits

The costs of defined benefit pension plans and other post-employment medical benefits are determined using actuarial valuations. The actuarial valuation involves making assumptions about discount rates, expected rates of return on assets, future salary increases, mortality rates and future pension increases. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. Further details are given in Note 21.

Development costs

Development costs are capitalized in accordance with the accounting policy as reflected before. Initial capitalization of costs is based on management judgement that technological and economic feasibility is confirmed, usually when a product development project has reached a defined milestone according to an established project management model. In determining the amounts to be capitalized, management makes assumptions regarding the expected future cash generation of the assets, discount rates to be applied and the expected period of benefits. Further details are contained in Note 11.

Inventory obsolescence

Provisions for obsolete inventories are recognized for inventories which are deemed obsolete. Significant management judgement is required to determine the amount which is considered obsolete. Further details are contained in Note 6.

New IFRS standards and interpretations

A number of new standards, amendments to standards and interpretations are effective for annual periods beginning on or after January 1, 2018. Those which may be relevant to the Company are set out below.

IFRS 16 Leases

IFRS 16 replaces existing leases guidance, including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases – Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

IFRS 16 specifies the recognition, measurement, presentation and disclosure of leases. The standard provides a single lessee accounting model, requiring lessees to recognize a right-to-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low-value items, which the Company will apply. Lessors continue to classify leases as operating or finance, with IFRS 16's approach to lessor accounting substantially unchanged from its predecessor, IAS 17. IFRS 16 was issued in January 2016 and applies to annual reporting periods beginning on or after January 1, 2019.

The Company will recognize new assets and liabilities for its operating leases of certain facilities and equipment. The nature of expenses related to those leases will now change because the Company will recognize a depreciation charge for right-of-use assets and interest expense on lease liabilities. Previously, the Company recognized operating lease expense on a straight-line basis over the term of the lease, and recognized assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognized.

Based on the information currently available, the Company estimates that it will recognize additional lease liabilities of € 14.2 million in its Consolidated Statement of Financial Position as at January 1, 2019.

The Company will apply IFRS 16 initially on January 1, 2019, using the modified retrospective approach. Therefore, the cumulative effect of adopting IFRS 16 will be recognized as an adjustment to the opening balance of retained earnings at January 1, 2019, with no restatement of comparative information. The Company will apply the practical expedient to grandfather the definition of a lease on transition. This means that it will apply IFRS 16 to all contracts entered into before January 1, 2019 and identified as leases in accordance with IAS 17 and IFRIC 4. The actual impacts of adopting the standard on January 1, 2019 may change because the Company has not finalized the testing and assessment of controls over its tool to calculate the IFRS 16 journal entries and the new accounting policies are subject to change until the Company presents its first financial statements that include the date of initial application.

The overall impact on the Consolidation Statement of Comprehensive Income is expected to be immaterial for 2019. The Company expects to report additional depreciation for rights-of-use assets of € 3.5 million, offset by lower expenses for operating leases by € 3.6 million and additional financial expenses of € 0.1 million.

IFRS Amendments

Several IFRS amendments have been published by the IASB which will be effective from January 1, 2019. However, the Company expects no material impact on the Consolidated Financial Statements.

3. Cash and cash equivalents

(euro in thousands)	December 31, 2018	December 31, 2017
Cash on hand at banks	295,539	427,825
Money market funds (readily convertible funds)	-	99,981
Total cash and cash equivalents	**295,539**	**527,806**

Interest rates are variable. At December 31, 2018 and 2017, no amount in cash and cash equivalents was restricted.

The money market funds as of December 31, 2017 are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

4. Deposits

(euro in thousands)	December 31, 2018	December 31, 2017
Deposits with maturity within 12 months	130,000	-
Deposits with maturity after 12 months	50,000	-
Subtotal	**180,000**	**-**
Less: non-current portion, non-current assets	(50,000)	-
Total deposits under current assets	**130,000**	**-**

At December 31, 2018 an amount of € 180 million was placed on deposit for various periods. An amount of € 50 million has a remaining maturity of more than one year and is presented as non-current. At December 31, 2017 no amount was placed on deposit. The expected credit loss on deposits is considered immaterial.

5. Trade receivables

Trade receivables, generally with payment terms of 30 to 90 days, with expected credit losses amounting to € 821 and € 772 at December 31, 2018 and 2017, respectively, are shown as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Trade accounts receivable	107,168	152,426
Allowance for expected credit losses	(821)	(772)
Total deposits under current assets	**106,347**	**151,654**

All trade accounts receivable have an estimated maturity shorter than one year. The carrying values of the recorded receivables are a reasonable approximation of their respective fair values, given the short maturities of the positions and the fact that allowances for expected credit losses have been recognized.

6. Inventories

Inventories consist of the following:

(euro in thousands)	December 31, 2018	December 31, 2017
Raw materials and spare parts	25,066	25,323
Work in progress	33,645	42,141
Finished goods	1,526	3,483
Total inventories, net	**60,237**	**70,947**

In 2018, raw materials and changes in work in progress and finished goods included in cost of sales amounted to € 182.4 million (2017: € 210.0 million).

The movements in the provision for obsolescence are as follows:

(euro in thousands)	2018	2017
Balance at January 1	11,369	13,583
Additions	769	131
Usage	(1,153)	(1,609)
Foreign currency translation	286	(736)
Balance at December 31	**11,271**	**11,369**

7. Other receivables

Other receivables consist of the following:

(euro in thousands)	December 31, 2018	December 31, 2017
VAT receivables	2,415	2,029
Deposits	220	168
Forward exchange contracts	2,143	2,647
R&D grants	2,838	1,871
Advances to employees	51	272
Other	348	527
Total other receivables	**8,015**	**7,514**

Other receivables do not include any amounts with expected remaining terms of more than one year. Reference is made to Note 30 for additional information with respect to forward foreign currency exchange contracts.

8. Prepayments

Prepayments consist of the following:

(euro in thousands)	December 31, 2018	December 31, 2017
Prepaid rent	605	352
Prepaid pensions and social security	361	362
Prepaid licences	613	761
Prepaid suppliers	595	1,581
Other prepayments	1,148	1,082
Total prepayments	**3,322**	**4,138**

Prepayments do not include any amounts with expected remaining terms of more than one year. Other prepayments consist of prepaid insurance, prepaid maintenance, prepaid exhibitions and other prepayments.

9. Property, plant and equipment

Property, plant and equipment, net consist of the following:

(euro in thousands)	Land, buildings and leasehold improvements	Machinery and equipment	Office furniture and equipment	Assets under construction	Total
Balance at January 1, 2018					
Cost	28,577	35,626	11,142	1,419	76,764
Accumulated depreciation and impairment	(14,193)	(26,485)	(9,569)	-	(50,247)
Property, plant and equipment, net	**14,384**	**9,141**	**1,573**	**1,419**	**26,517**
Changes in book value in 2018					
Capital expenditures	1,460	3,044	868	(55)	5,317
Transfers	(99)	2,417	(48)	-	2,270
Disposals (cost)	(44)	(3,543)	(1,192)	-	(4,779)
Disposals (accumulated depreciation)	44	3,345	1,187	-	4,576
Depreciation	(1,274)	(2,977)	(860)	-	(5,111)
Impairment	(350)	-	-	-	(350)
Foreign currency translation	79	46	2	(16)	111
Total changes	**(184)**	**2,332**	**(43)**	**(71)**	**2,034**
Balance at December 31, 2018					
Cost	30,241	38,090	10,471	1,348	80,150
Accumulated depreciation and impairment	(16,041)	(26,617)	(8,941)	-	(51,599)
Property, plant and equipment, net	**14,200**	**11,473**	**1,530**	**1,348**	**28,551**

(euro in thousands)	Land, buildings and leasehold improvements	Machinery and equipment	Office furniture and equipment	Assets under construction	Total
Balance at January 1, 2017					
Cost	28,090	36,322	10,726	878	76,016
Accumulated depreciation	(13,648)	(25,912)	(9,463)	-	(49,023)
Property, plant and equipment, net	**14,442**	**10,410**	**1,263**	**878**	**26,993**
Changes in book value in 2017					
Capital expenditures	1,329	1,600	1,041	579	4,549
Transfers from inventory	-	789	-	-	789
Disposals (cost)	(113)	(1,784)	(344)	-	(2,241)
Disposals (accumulated depreciation)	108	1,779	343	-	2,230
Depreciation	(1,013)	(3,155)	(682)	-	(4,850)
Foreign currency translation	(369)	(498)	(48)	(38)	(953)
Total changes	**(58)**	**(1,269)**	**310**	**541**	**(476)**
Balance at December 31, 2017					
Cost	28,577	35,626	11,142	1,419	76,764
Accumulated depreciation	(14,193)	(26,485)	(9,569)	-	(50,247)
Property, plant and equipment, net	**14,384**	**9,141**	**1,573**	**1,419**	**26,517**

Depreciation and impairment

The depreciation and impairment is recognized in the following line items in the Consolidated Statement of Comprehensive Income:

(euro in thousands)	Year ended December 31,	
	2018	2017
Cost of sales	2,092	1,819
Selling, general and administrative expenses	2,911	2,526
Research and development expenses	458	505
Total depreciation	**5,461**	**4,850**

10. Goodwill

Goodwill, net consists of the following:

(euro in thousands)	2018	2017
Balance at January 1		
Cost	64,887	66,067
Accumulated impairment	(20,200)	(20,200)
Goodwill, net	**44,687**	**45,867**
Changes in book value		
Foreign currency translation	412	(1,180)
Total changes	**412**	**(1,180)**
Balance at December 31		
Cost	65,299	64,887
Accumulated impairment	(20,200)	(20,200)
Goodwill, net	**45,099**	**44,687**

Impairment tests for cash-generating units containing goodwill

The Company annually carries out impairment tests on capitalized goodwill, based on the cash-generating units.

The aggregate carrying amounts of goodwill with indefinite lives allocated to each cash-generating unit are as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Die Attach	43,118	42,706
Plating	1,981	1,981
Total	**45,099**	**44,687**

The value-in-use of the cash-generating units subject to impairment testing is calculated based on the discounted cash flow method. The value-in-use calculations use discounted cash flow projections based on the budget for the year 2019 and financial projections per Product Group approved by management for the projection period (2020-2023).

The key assumptions used by management underlying the value-in-use calculation per cash-generating unit are as follows:

- Cash flows per cash-generating unit for the five-year projection period are based on:
  - The Company's budget for 2019.
  - Revenue forecasts for 2020-2023 as per market growth estimates from VLSI Research, a leading independent analyst for the semiconductor and semiconductor equipment industries, and the Company's estimated market shares.
  - Bottom-up estimates for gross profit, research and development and selling, general and administrative expenses as per management's strategic planning.
- A pre-tax discount rate of 10.4% (Die Attach) to 11.4% (Plating) representing the pre-tax weighted average cost of capital (WACC) is determined using the Capital Asset Pricing Model (in 2017 a pre-tax discount rate of 11.2% (Die Attach) and 12.5% (Plating)).
- Residual value is based on a 1.0% perpetual growth rate (in 2017: 1.0%).
- The risk free rate of 1.0% (in 2017: 1.3%) and equity risk premium of 5.5% (in 2017: 5.8%).

All assumptions used reflect the current market assessment and are based on published indices and management estimates which are challenged by a third party financial advisor. Based on this analysis, management believes that the value-in-use of the cash-generating units subject to impairment testing substantially exceeded their carrying values and that, therefore, goodwill was not impaired as of December 31, 2018.

The outcome of a sensitivity analysis was that reasonably possible adverse changes in key assumptions of 100 basis points (lower revenue growth rates and higher discount rates respectively) would not result in other conclusions for the impairment test performed.

11. Other intangible assets

Other intangible assets, net consist of the following:

(euro in thousands)	Software	Development expenses	Total
Balance at January 1, 2018			
Cost	10,795	45,291	56,086
Accumulated amortization	(10,047)	(11,899)	(21,946)
Other intangible assets, net	**748**	**33,392**	**34,140**
Changes in book value in 2018			
Capitalized development expenses	-	11,449	11,449
Capitalized expenditures	1,256	-	1,256
Amortization	(636)	(8,911)	(9,547)
Foreign currency differences	3	1,033	1,036
Total changes	**623**	**3,571**	**4,194**
Balance at December 31, 2018			
Cost	12,105	59,004	71,109
Accumulated amortization	(10,734)	(22,041)	(32,775)
Other intangible assets, net	**1,371**	**36,963**	**38,334**

(euro in thousands)	Software	Development expenses	Total
Balance at January 1, 2017			
Cost	9,422	56,283	65,705
Accumulated impairment	(330)	-	(330)
Accumulated amortization	(8,247)	(19,284)	(27,531)
Other intangible assets, net	**845**	**36,999**	**37,844**
Changes in book value in 2017			
Capitalized development expenses	-	6,662	6,662
Capitalized expenditures	485	-	485
Disposals (cost)	(330)	(10,892)	(11,222)
Disposals (accumulated amortization)	330	10,892	11,222
Amortization	(578)	(7,936)	(8,514)
Foreign currency differences	(4)	(2,333)	(2,337)
Total changes	**(97)**	**(3,607)**	**(3,704)**
Balance at December 31, 2017			
Cost	10,795	45,291	56,086
Accumulated amortization	(10,047)	(11,899)	(21,946)
Other intangible assets, net	**748**	**33,392**	**34,140**

At December 31, 2018 an amount of € 13,248 (2017: € 10,691) relates to capitalized development expenses not available for use, which have been tested for impairment. The impairment tests did not indicate any required impairment of capitalized development expenses.

The disposals of software and development expenses relate to intangible assets that have been fully amortized.

Amortization

The amortization charge is recognized in the following line items in the Consolidated Statement of Comprehensive Income:

(euro in thousands)	Year ended December 31,	
	2018	2017
Cost of sales	16	1
Selling, general and administrative expenses	528	485
Research and development expenses	9,003	8,028
Total amortization	**9,547**	**8,514**

12. Income taxes

Deferred tax assets (liabilities) consist of the following:

(euro in thousands)		December 31,
	2018	2017
Deferred tax assets	4,769	4,660
Deferred tax liabilities	(10,244)	(10,050)
Total deferred tax assets (liabilities), net	**(5,475)**	**(5,390)**

The items giving rise to the deferred tax assets (liabilities), net were as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Deferred tax assets (liabilities)		
Operating losses carry forward	5,016	7,636
Intangible assets	(9,317)	(8,694)
Inventories	571	614
Provision for pensions	1,917	2,019
Convertible Notes	(5,318)	(7,174)
Foreign currency differences	599	227
Contract liability	511	-
Other items	546	(18)
Total deferred tax assets (liabilities), net	**(5,475)**	**(5,390)**

(euro in thousands)	January 1, 2018	Profit & loss 2018	OCI	Equity	Foreign currency	December 31, 2018
Deferred tax assets (liabilities), net						
Operating losses carry forward	7,636	(2,223)	(590)	-	193	5,016
Intangible assets	(8,694)	(583)	-	-	(40)	(9,317)
Inventories	614	(43)	-	-	-	571
Provision for pensions	2,019	47	(182)	-	33	1,917
Convertible Notes	(7,174)	1,022	-	834	-	(5,318)
Foreign currency differences	227	368	-	-	4	599
Contract liability	-	(605)	-	1,116	-	511
Other items	(18)	821	120	(308)	(69)	546
Total	**(5,390)**	**(1,196)**	**(652)**	**1,642**	**121**	**(5,475)**

(euro in thousands)	January 1, 2017	Profit & loss 2017	OCI	Equity	Foreign currency	December 31, 2017
Deferred tax assets (liabilities), net						
Operating losses carry forward	15,437	(7,169)	-	-	(632)	7,636
Intangible assets	(8,144)	(723)	-	-	173	(8,694)
Inventories	502	112	-	-	-	614
Provision for pensions	1,945	-	145	-	(71)	2,019
Convertible Notes	(2,853)	372	-	(4,693)	-	(7,174)
Other items	662	(192)	(163)	-	(98)	209
Total	**7,549**	**(7,600)**	**(18)**	**(4,693)**	**(628)**	**(5,390)**

The deferred tax assets for operating losses carry forward are related to the US and Dutch operations of the Company. Under applicable US tax law, the carry forwards related to the US operating losses of € 15.0 million expire during the period of 2022 and thereafter. The carry forwards related to the Dutch operating losses amount to approximately € 7.7 million and expire during the periods of 2018 through 2022. The Company has tax credits amounting to € 0.2 million which are not recognized.

In assessing the recoverability of deferred tax assets, the Company considers whether it is probable that sufficient taxable profits will be available to realize some portion or all of the deferred tax assets. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which those temporary differences become deductible. The Company considers the scheduled reversal of deferred tax liabilities and projected future taxable income in making this assessment.

The US carry forwards amount to € 15.0 million as of December 31, 2018. This amount is expected to be fully recovered. These carry forwards are valued at 21%, being the new tax rate for the USA based on the new tax bill signed on December 22, 2017.

In 2018 Dutch Government reduced the statutory tax rate as follows: for 2019 a tax rate of 25% still applies, for 2020 the tax rate is reduced to 22.55% and from 2021 and onward the statutory tax is reduced to 20.5%. The Dutch carry forwards relating to operating losses amounting to € 7.7 million are for € 5.2 million valued at the statutory tax rate of 25% and for € 2.5 million valued at 22.55%.

Under the Dutch innovation box regime, qualifying income that results from endeavours in the field of R&D is taxed at an effective Dutch corporation tax rate of 7% (normal Dutch corporation tax for the Company is 25% until 2019). A taxpayer can only apply the innovation box for intangibles that originate from activities for which the Ministry of Economic Affairs granted an R&D Declaration. In 2018 the Company filed a request for applying the Dutch innovation box regime as the Company meets all requirements and therefore qualifies for application of the innovation box regime. This application covers the (open) tax years 2015 and thereafter. In connection with this request, the Company recorded a tax gain of € 4.8 million in 2018.

The distinction in recognized and unrecognized tax losses carry forward is as follows:

(euro in millions)	2018		2017	
	Recognized	Unrecognized	Recognized	Unrecognized
Netherlands	1.8	-	3.9	-
USA	3.2	-	3.7	-
Total	**5.0**	**-**	**7.6**	**-**

The aggregate deferred tax related to items recognized outside of profit and loss amounts to € 0.8 million. The Dutch domestic statutory tax rate is 25.0% for the years ended December 31, 2018 and 2017.

The reconciliation between the actual income tax shown in the Consolidated Statement of Comprehensive Income and the expense (benefit) that would be expected based on the application of the domestic tax rate to income before income tax is as follows:

(euro in thousands)	**Year ended December 31, 2018**	**in % of income before taxes**	**Year ended December 31, 2017**	**in % of income before taxes**
"Expected" income tax expense based on domestic rate	38,736	25.0%	49,803	25.0%
Non-deductible expenses	2,976	1.9%	1,434	0.7%
Foreign tax rate differential[1]	(19,154)	(12.4%)	(23,432)	(11.7%)
Tax incentive	(5,333)	(3.4%)	-	-
Tax exempt income	(360)	(0.2%)	(1,662)	(0.8%)
Recognition of previous unrecognized tax losses in the US and the Netherlands	-	-	(972)	(0.5%)
Changes in enacted tax rates	-	-	972	0.5%
Adjustments prior years	1,064	0.7%	-	-
Withholding taxes	85	-	424	0.2%
Other	674	0.5%	(511)	(0.3%)
Income tax expense shown in Consolidated Statement of Comprehensive Income	**18,688**	**12.1%**	**26,056**	**13.1%**

[1] Mainly in nominal Swiss and Dutch tax rates.

The income tax expense shown in the Consolidated Statement of Comprehensive Income consisted of the following:

(euro in thousands)	**Year ended December 31, 2018**	**2017**
Current	17,492	18,456
Deferred	1,196	7,600
Total	**18,688**	**26,056**

There are no income tax consequences attached to the proposed payment of dividends by the Company to its shareholders.

Tax risk

Given the international business structure of the Company and the increasing number and amounts of intercompany transactions and the internationally growing attention for tax Base Erosion and Profit Shifting ("BEPS"), certain tax risks hereto may exist. The Company does not pay taxes or make use of tax structures in countries where the Company has no economic activities.

In Malaysia a tax audit is ongoing of which the outcome is not known yet.

13. Other non-current assets

Other non-current assets consist of the following:

(euro in thousands)	**December 31, 2018**	**December 31, 2017**
Funds with insurance companies for pension liability	1,685	1,680
Guarantee deposits	632	626
Other	-	214
Total other non-current assets	**2,317**	**2,520**

Reference is made to Note 21 for more details.

14. Borrowing facilities

At December 31, 2018, Besi and its subsidiaries had available lines of credit aggregating € 17.9 million (2017: € 21.9 million), under which € 3.5 million (2017: € 2.3 million) was utilized of which € 2.8 million (2017: € 1.7 million) relate to notes payable to banks and € 0.7 million (2017: € 0.6 million) relates to bank guarantees. In general, interest is charged at the banks' base lending rates or Euribor/Libor plus an increment. The credit facility agreements, except for the credit line of € 1.5 million related to Besi Leshan Co., Ltd, are granted without securities and covenants and have no stated contractual maturity. There were no defaults at December 31, 2018.

A summary of Besi's principal credit lines is as follows:

- A credit line of € 10 million related to BE Semiconductor Industries N.V. and Besi Netherlands B.V. is granted without securities and covenants. The borrowing facility has no contractual maturity date.

- A credit line of € 0.5 million related to Besi APac Sdn. Bhd. for bank guarantees is granted without securities, however with the requirement that BE Semiconductor Industries N.V. holds, directly or indirectly, an interest of at least 51%. The borrowing facility has no contractual maturity date.

- A credit line of € 0.6 million related to Besi Singapore Pte. Ltd. for bank guarantees is granted without securities, however with the requirement that BE Semiconductor Industries N.V. holds, directly or indirectly, an interest of at least 51%. The credit facility is secured by a parent company guarantee. The borrowing facility has no contractual maturity date.

- A credit line of € 5.3 million related to Besi Leshan Co., Ltd., to be reduced to € 2.8 million starting from March 1, 2019 is granted without securities, however with the requirement that BE Semiconductor Industries N.V. holds, directly or indirectly, an interest of at least 51%. The credit facility is secured by a guarantee of BE Semiconductor Industries N.V. The borrowing facility has no contractual maturity date.

- A credit line of € 1.5 million related to Besi Leshan Co., Ltd. The credit facility is secured by a mortgage on land and buildings. The maturity date is November 12, 2019.

15. Provisions

(euro in thousands)	**December 31, 2018**	**December 31, 2017**
Warranty provision	5,029	8,233
Restructuring provision	172	32
Total provisions	**5,201**	**8,265**

Warranty provision

A summary of activity in the warranty provision is as follows:

(euro in thousands)	**2018**	**2017**
Balance at January 1	9,476	5,068
Effect of adoption of new accounting standards IFRS 15 (Note 2)	(2,653)	-
Balance at January 1 adjusted	**6,823**	**5,068**
Additions	2,045	10,460
Usage	(4,224)	(5,445)
Foreign currency translation	385	(607)
Subtotal	**5,029**	**9,476**
Less non-current portion	-	(1,243)
Balance at December 31	**5,029**	**8,233**

A provision for warranty is recognized when the underlying products or services are sold and presented in selling, general and administrative expenses. The provision is based on historical warranty data and a weighting of all possible outcomes against their associated probabilities. The warranty provision encompasses the standard warranty provided to customers only. Extended warranty provided, if any, is considered a separate performance obligation under IFRS 15 and is accounted for as contract liability under the other liabilities.

Restructuring provision

Changes in the restructuring provision were as follows:

(euro in thousands)	2018	2017
Balance at January 1	32	164
Additions	994	3
Usage	(854)	(134)
Foreign currency translation	-	(1)
Balance at December 31	**172**	**32**

The provision at December 31, 2018 is expected to be fully utilized during 2019.

The restructuring charges are recognized in the following line items in the Consolidated Statement of Comprehensive Income:

(euro in thousands)	Year ended December 31, 2018	2017
Cost of sales	368	(1)
Selling, general and administrative expenses	626	6
Research and development expenses	-	(2)
Total	**994**	**3**

16. Trade payables

Trade payables are non-interest bearing and are normally settled on 30-90 day terms.

17. Other payables

(euro in thousands)	December 31, 2018	December 31, 2017
Payroll accruals	11,882	12,298
Accrued audit and consultancy fees	1,581	863
Forward exchange contracts	138	685
Invoices to be received	1,336	1,318
Accrued utility costs	216	176
Accrued project costs	2,168	3,738
Payable treasury shares	-	332
Accrued maintenance	242	231
Freight and packaging costs	306	780
Accrued interest expenses	1,243	656
Volume rebate	3,848	4,129
Tax payable	319	502
Payable minority interest Besi Leshan	-	321
Other payables	3,096	3,268
Total other payables	**26,375**	**29,297**

Other payables are non-interest bearing and have an average term of three months. Interest payable is normally settled quarterly throughout the year with the exception of the Convertible Notes on which interest is settled semi-annually. Reference is made to Note 30 for additional information with respect to forward foreign currency exchange contracts.

18. Other current liabilities

(euro in thousands)	December 31, 2018	December 31, 2017
Advances from customers	1,790	4,127
Contract liabilities	12,867	8,213
Payroll liabilities	2,628	2,728
Other	1,383	731
Total other liabilities	**18,668**	**15,799**
Contract liabilities non-current portion	(2,494)	-
Total other current liabilities	**16,174**	**15,799**

Other current liabilities are non-interest bearing and are not expected to be settled in cash.

19. Long-term debt and financial leases

(euro in thousands)	December 31, 2018	December 31, 2017
Long-term debt		
Convertible Notes	271,790	267,195
Loan Raiffeisen Landesbank (Interest rate 0.95%)	-	10,000
Credit line Besi Leshan Co., Ltd (Interest rate at 5.22% at December 31, 2018	1,461	-
Financial leases	75	120
Research and development loan from Österreichische Forschungsförderungsgesellschaft, Wien, Austria (Interest rate at 0.75% at December 31, 2017)	-	1,187
Subtotal	**273,326**	**278,502**
Less: current portion	(1,502)	(11,228)
Total long-term debt and financial leases	**271,824**	**267,274**

Aggregate required principal payments due on long-term debt for the next five years and thereafter are as follows:

(euro in thousands)	Long-term debt
2019	1,502
2020	34
2023 and thereafter (Convertible Notes assuming no conversion)	300,000
Total	**301,536**
Less: current portion of long-term debt and financial leases	(1,502)
Non-current portion of long-term debt	**300,034**

The Company and its subsidiaries had no defaults for its long-term debt at December 31, 2018.

Convertible Notes

In December 2016, the Company issued € 125 million principal amount of Convertible Notes with a maturity date of December 2, 2023 (the "2016 Convertible Notes"). The 2016 Convertible Notes carry a nominal interest rate of 2.5% per year, payable semi-annually, with the first payment made on June 2, 2018. Bondholders can convert the bonds into ordinary shares at an initial conversion price of € 21.76 (adjusted for the two for one stock split). The 2016 Convertible Notes will be repaid at maturity at a price of 100% of their principal amount plus accrued and unpaid interest. If not converted, at any time from December 23, 2020, the Company may redeem the outstanding 2016 Convertible Notes at their principal amount, subject to giving a minimum of 30 days' and maximum of 60 days' prior notice to Bondholders, if the value of the shares underlying the 2016 Convertible Notes equals or exceeds 130% of the then effective conversion price for at least 20 out of 30 consecutive dealing days.

The amount of the 2016 Convertible Notes classified as equity of € 11,310 is net of attributable debt issuance cost of € 215.

In November 2017, the Company issued € 175 million principal amount of Convertible Notes with a maturity date of December 6, 2024 (the "2017 Convertible Notes"). The 2017 Convertible Notes carry a nominal interest rate of 0.5% per year, payable semi-annually, with the first payment made on June 6, 2018. Bondholders can convert the bonds into ordinary shares at an initial conversion price of € 49.87 (adjusted for the two for one stock split). The 2017 Convertible Notes will be repaid at maturity at a price of 100% of their principal amount plus accrued and unpaid interest. If not converted, at any time from December 27, 2021, the Company may redeem the outstanding 2017 Convertible Notes at their principal amount, subject to giving a minimum of 30 days' and maximum of 60 days' prior notice to Bondholders, if the value of the shares underlying the 2017 Convertible Notes equals or exceeds 130% of the then effective conversion price for at least 20 out of 30 consecutive dealing days.

The amount of the 2017 Convertible Notes classified as equity of € 18,479 is net of attributable debt issuance cost of € 292.

Reconciliation of liabilities arising from financing activities

The table below details the changes in the Company's liabilities arising from financing activities, including both cash and non-cash changes. Liabilities arising from financing activities are those for which cash flows were, or future cash flows will be, classified in the Company's Consolidated Statement of Cash Flows as cash flows from financing activities.

(euro in thousands)	January 1, 2018	Financing cash flows	Amortization	December 31, 2018
Convertible Notes	267,195	-	4,595	271,790
Government loans	1,187	(1,187)	-	-
Bank loans	10,000	(8,539)	-	1,461
Other borrowings	1,742	1,070	-	2,812
Financial leases	120	(45)	-	75
Total	**280,244**	**(8,701)**	**4,595**	**276,138**

(euro in thousands)	January 1, 2017	Financing cash flows	Equity component of Convertible Notes	Other changes[1]	December 31, 2017
Convertible Notes	111,491	172,282	(13,788)	(2,790)	267,195
Government loans	3,353	(2,166)	-	-	1,187
Bank loans	10,000	-	-	-	10,000
Other borrowings	11,855	(10,113)	-	-	1,742
Financial leases	-	-	-	120	120
Total	**136,699**	**160,003**	**(13,788)**	**(2,670)**	**280,244**

[1] Other changes mainly consist of the deferred tax liability related to the 2017 Convertible Notes (€ 4,692 negative) and the increased valuation of the 2016 Convertible Notes (€ 1,902).

20. Provisions

Provisions consist of the following:

(euro in thousands)	December 31, 2018	December 31, 2017
Pension liabilities Austria	519	753
Pension liabilities Switzerland	8,514	9,439
Severance obligations Austria	3,636	3,562
Severance obligations Korea	1,964	1,669
Warranty provision (non-current portion)	-	1,243
Other provisions	380	545
Provisions	**15,013**	**17,211**

21. Employee benefits

Pension plan Dutch subsidiaries

Type:	Defined contribution plan. Industry-wide pension plan managed by Bedrijfstakpensioenfonds Metalektro.
Company obligations:	No continuing obligations other than the annual payments.
Contributions:	€ 1.1 million in 2018 and € 1.1 million 2017.
Other:	Excedent plan for certain employees which is a defined contribution plan.

Pension plan parent company

Type:	Defined benefit plan for guaranteed pension payments. Insured with an independent insurance company.
Company obligations:	The contributions required are based on the agreement with the insurer. The Company does not hold any transferable financial instruments as plan assets.
Duration:	The weighted average duration of the plan is 25 years.
Valuation:	The pension assets related to this defined benefit plan are netted with the pension liability. As no market price is available, the fair value of plan assets is estimated by discounting expected future cash flows. The total gains from changes in demographic assumptions, financial assumptions and experience adjustments in 2018 and 2017 were € 20 and € 177, respectively.
Discount rate:	Reflects both the risk associated with the plan assets and the maturity or expected disposal date of those assets.

Net benefit liability:

(euro in thousands)	December 31, 2018	December 31, 2017
Defined benefit obligations	2,408	2,188
Fair value of plan assets	(2,245)	(2,042)
Net liability	**163**	**146**

Pension plan Switzerland

Type:	Defined benefit plan for guaranteed pension payments. Insured with an independent insurance company.
Company obligations:	The contributions required are based on the agreement with the insurer. The Company does not hold any transferable financial instruments as plan assets.
Duration:	The weighted average duration of the plan is 18 years.
Valuation:	The pension assets related to this defined benefit plan are netted with the pension liability. The cost of providing benefits under the defined benefit plan is calculated using the project unit cost method. Remeasurements are reported in accumulated other comprehensive income (loss).
Discount rate:	The discount rate is based on the available information at November 30, 2018 and determined as follows: Swiss franc bonds with rating AA as included in the Swiss Bond Index. These bonds are used to determine a yield curve for durations up to 10 years. This yield curve is extended based on the government bond rates for longer duration.

Principal actuarial assumptions at the reporting date:

	2018	2017
Discount rate	0.95%	0.70%
Future salary increases	1.50%	1.50%
Future pension increases	0.10%	0.10%

Movement in the present value of the defined benefit obligations:

(euro in thousands)	2018	2017
Liability for defined benefit obligations at January 1	42,889	45,118
Current service cost	1,350	1,332
Interest expense	298	279
Actuarial loss (gain) arising from changes in economic assumptions	(1,850)	(388)
Actuarial loss (gain) arising from experience	634	1,039
Plan participants' contribution	442	471
Gains on curtailment	(832)	-
Benefits paid through pension assets and net transfers	(1,563)	(1,228)
Foreign currency differences	1,601	(3,734)
Liability for defined benefit obligations at December 31	**42,969**	**42,889**

Total defined benefit cost recognized in the Consolidated Statement of Comprehensive Income:

(euro in thousands)	Year ended December 31, 2018	2017
Current service costs	1,350	1,332
Interest expense on benefit obligation	298	279
Interest income on plan assets	(237)	(228)
Past service costs including effects of curtailment	(832)	-
Administration expenses	52	60
Defined benefit cost recognized in net income	**631**	**1,443**
Remeasurement from changes in financial assumptions and experience	(1,216)	651
Return on plan assets (excluding amounts in net interest)	420	161
Defined benefit cost recognized in comprehensive income	**(165)**	**2,255**

Movement in the fair value of plan assets:

(euro in thousands)	2018	2017
Fair value of plan assets at January 1	33,450	36,065
Interest income	237	228
Return on plan assets (excluding amounts included in net income)	(420)	(161)
Plan participants' contribution	442	471
Company contributions	1,087	1,111
Benefits paid through pension assets	(1,563)	(1,228)
Administration expenses	(52)	(60)
Other	-	-
Foreign currency differences	1,273	(2,976)
Fair value of plan assets at December 31	**34,454**	**33,450**

The major categories of plan assets as a percentage of the fair value of total plan assets are as follows:

	December 31, 2018	December 31, 2017
Qualified insurance policies	100%	100%
Others/cash	-	-
Total	**100%**	**100%**

The insurance policies cover in principle the minimum funding requirements. Future contributions can be increased due to changes in the annuity factors. This is subject to decision of the Company.

Net benefit liability:

(euro in thousands)	December 31, 2018	December 31, 2017
Defined benefit obligations	42,969	42,889
Fair value of plan assets	(34,454)	(33,450)
Net liability	**8,515**	**9,439**

Historical information

(euro in thousands)	2018	2017
Present value of the defined benefit obligations	42,969	42,889
Fair value of plan assets	(34,454)	(33,450)
Deficit in the plan	**8,515**	**9,439**
Experience adjustments arising on plan liabilities economic assumptions	(1,850)	(388)
Experience adjustments arising on plan liabilities from experience	634	1,039
Experience adjustments arising on plan assets ((gains)/losses)	(420)	(161)

Total expected payments or contributions to the defined benefit plan for 2019 amount to € 1.0 million.

Sensitivity analysis
The calculation of the defined benefit obligations is sensitive to the assumptions as set out above. The following table summarizes how the defined benefit obligation at the end of the reporting period would have increased (decreased) as a result of a change in the respective assumptions by 0.25%.

(euro in thousands)	Defined benefit obligations	
	0.25% increase	0.25% decrease
Discount rate	(1,760)	1,896
Salary increase	176	(171)
Pension indexation	n/a	n/a
Interest credit rate	430	(418)

The above sensitivities are based on the average duration of the defined benefit obligations determined at the date of the last full actuarial valuation at December 31, 2018 and are applied to adjust the defined benefit obligation at the end of the reporting period of the assumptions concerned.

Pension plan Austria

Type:	Voluntary defined benefit plan for guaranteed pension payments covering certain persons, as well as a defined benefit plan for severance payments in accordance with Austrian Labor Law. Both plans are insured with an independent insurance company.
Company obligations:	The contributions required based on the agreement with the insurer. The Company does not hold any transferable financial instruments as plan assets.
Duration:	The weighted average duration of the pension plan is 16 years and the plan for severance payments is 17 years.
Valuation:	The pension assets related to this defined benefit plan do not qualify as plan assets and are therefore presented separately, not netted with the pension liability. The cost of providing benefits under the defined benefit plans is determined separately for each plan using the project unit cost method. Remeasurements are recognized in accumulated other comprehensive income (loss). There were no gains or losses from changes in demographic and financial assumptions for either pension or severance payment plan.
Discount rate:	The discount rate was derived by reference to appropriate benchmark yields on high quality corporate bonds.

Principal actuarial assumptions at the reporting date:

	2018	2017
Discount rate	1.75%	1.75%
Future salary increases (severance payments)	3.00%	3.00%

Movements in the present value of the defined benefit and severance obligations recognized in the Consolidated Statement of Financial Position are as follows:

(euro in thousands)	Pension liabilities	Severance obligations	2018 Total	Pension liabilities	Severance obligations	2017 Total
Liability for defined benefit and severance obligations at January 1	753	3,562	4,315	731	3,444	4,175
Service cost	23	192	215	23	197	220
Interest expense	13	61	74	13	60	73
Remeasurement losses (gains) recognized	(168)	(40)	(208)	(5)	(113)	(118)
Other	-	-	-	(1)	(1)	(2)
Benefits paid	(102)	(139)	(241)	(8)	(25)	(33)
Liability for defined benefit and severance obligations at December 31	**519**	**3,636**	**4,155**	**753**	**3,562**	**4,315**

The accumulated defined benefit obligation amounts to € 4.2 million at December 31, 2018. Future expected benefit payments to (former) employees regarding pensions and leave over the next 10 years are considered immaterial.

A summary of the components of the defined benefit cost recognized in the Consolidated Statement of Comprehensive Income is as follows:

(euro in thousands)	Year ended December 31, 2018	2017
Service cost	215	220
Interest expense	74	73
Defined benefit cost recognized in net income	**289**	**293**
Remeasurement losses (gains) recognized	(208)	(118)
Defined benefit cost recognized in comprehensive income	**81**	**175**

Changes in assets related to the liability for defined benefit and severance obligations recognized in the Consolidated Statement of Financial Position are as follows:

(euro in thousands)	2018	2017
Fair value of plan assets at January 1	1,680	1,586
Interest income	48	7
Employer contribution/additions to assets	57	87
Benefits paid	(100)	-
Fair value of plan assets at December 31	**1,685**	**1,680**

At December 31, 2018, the assets consist of bonds (4%), investment funds (27%) and insurance policies (69%). At December 31, 2017 the assets mix was 4%, 28% and 68%, respectively.

Historical information

(euro in thousands)	2018	2017
Present value of the defined benefit and severance obligations	4,155	4,315
Fair value of plan assets	(1,685)	(1,680)
Deficit in the plan	**2,470**	**2,635**
Experience adjustments and changes in financial assumptions on plan liabilities ((gains)/losses)	(208)	(118)

Total expected payments or contributions to the defined benefit plan for 2019 amount to € 0.1 million.

Sensitivity analysis

The calculation of the defined benefit and severance obligations is sensitive to the assumptions as set out earlier. The following table summarizes how the defined benefit and severance obligation at the end of the reporting period would have increased (decreased) as a result of a change in the respective assumptions by 0.25%.

(euro in thousands)	Defined benefit and severance obligations	
	0.25% increase	0.25% decrease
Discount rate	(177)	187
Salary increase	152	(145)

The above sensitivities are based on the average duration of the defined benefit and severance obligations determined at the date of the last full actuarial valuation at December 31, 2018 and are applied to adjust the defined benefit and severance obligations at the end of the reporting period of the assumptions concerned.

Pension plan - other countries

The Company's US, Malaysian, Korean, Chinese and Singapore subsidiaries have defined contribution plans that supplement the governmental benefits provided under local legislation.

Share-based payments

Remuneration policy 2017-2019

In 2016, the Company adopted the Remuneration Policy 2017-2019, which is mainly a prolongation of the Remuneration Policy 2011-2016. The total number of ordinary shares that will be awarded may not exceed 1.5% of the total number of outstanding shares at December 31 of the year prior to the year in which the award is made.

At the Annual General Meeting in 2018, shareholders approved a proposal whereby each Besi ordinary share is split into two ordinary shares with a simultaneous increase in the number of total ordinary shares authorized from 160 million to 320 million. Shareholders of record at the close of business on May 7, 2018 were eligible for the stock split. For comparative purposes, the award numbers prior to the stock split have been multiplied by two and the share prices and fair values prior to the stock split have been divided by two in this share-based payment note.

Under the Remuneration Policy 2017-2019, the Supervisory Board may, at its own discretion and upon recommendation of the Remuneration and Nomination Committee, award additional shares to a member of the Board of Management as a reward for extraordinary achievements of excellent performance, up to a maximum of 60,000 shares (120,000 shares following the two for one stock split in May 2018). For the performance year 2018, the Supervisory Board at its own discretion and upon recommendation by the Remuneration and Nomination Committee, awarded the member of the Board of Management 120,000 shares on a split-adjusted basis, which vested on February 14, 2018.

2014 and 2017 Framework Incentive Plan

The performance shares awarded as from 2014 to the member of the Board of Management and other employees under the 2014 and the 2017 Framework Incentive Plan will vest at the end of the three-year performance period, depending on the actual performance of the Company. If at target performance is achieved, 100% of the performance shares awarded will vest. The maximum number of shares that can vest amounts to 150% of the target number of performance shares conditionally awarded.

After the three-year performance period the actual number of performance shares that vests, subject to continued employment, will be determined based on:

- Net Income relative to Revenue (NIR) over a three-year performance period (50%).
- The Company's Total Shareholder Return ("TSR") relative to that of the TSR peer group consisting of 19 peer companies operating in the semiconductor industry (50%).

The TSR comparator group consists of the following companies:

TSR comparator group (including Besi)	
Aixtron SE	Kulicke & Soffa Industries, Inc.
Applied Materials, Inc.	Lam Research Corporation
ASM International N.V.	Nanometrics, Inc.[1]
ASML Holding N.V.	Nova Measuring Instruments Ltd.[2]
ASM Pacific Technology Ltd.	Shinkawa Ltd.
Axcelis Technologies, Inc.	SÜSS MicroTec SE
Brooks Automation, Inc.	Tokyo Electron Ltd.
Cohu, Inc.	Tokyo Seimitsu Co., Ltd.
Disco Corporation	Veeco Instruments, Inc.
Entegris, Inc.	

[1] Subsequent to the acquisition by Veeco that was announced on February 2, 2017, Ultratech, Inc.'s shares were delisted. As such, it has been removed and replaced by Nanometrics, Inc. as of the business day prior to the acquisition announcement date.
[2] Due to the delisting of Mattson Technology, Inc., this company is replaced by Nova Measuring Instruments Ltd. as per the business day prior to the day Beijing E-Town Dragon announced the acquisition.

The vesting is determined based on the following schedule:

Ranking of Besi in comparator group based on relative TSR during performance period	Vesting percentage performance shares
Rank 1 – Rank 3	75%
Rank 4 – Rank 6	50% (at target)
Rank 7 – Rank 12	25%
Rank 13 – Rank 20	0%

Summary of outstanding performance shares

Following is a summary of changes in performance shares (award numbers adjusted for the two for one stock split):

	2018	2017
Outstanding at January 1	793,460	1,106,146
Performance shares granted (at target level)	142,418	209,064
Shares discretionary granted to the Board of Management	120,000	120,000
Shares discretionary granted to key employees	55,100	23,000
Performance adjustments	157,496	252,070
Performance shares settled in equity instruments (re-issued from treasury shares)	(642,792)	(899,170)
Performance shares forfeited	(100,528)	(17,650)
Outstanding at December 31	**525,154**	**793,460**

The market price adjusted for the two for one stock split of the Company's ordinary shares at the date of grant of performance shares in 2018 and 2017 was € 31.25 and € 23.98, respectively. At the date of grant of additional shares to the current member of the Board of Management, the market price adjusted for the two for one stock split of the Company's ordinary shares was € 37.93 (2017: € 16.83) and at the date of grant to key employees the price was € 40.60 (2017: € 18.67).

The following table shows the aggregate at target number of performance shares conditionally awarded to the current member of the Board of Management, in accordance with the Besi 2014 Framework Incentive Plan (award numbers adjusted for two for one stock split):

Performance shares	Year of grant	Three-year performance period	Number of performance shares
R.W. Blickman	2016	2016-2018	56,448
	2017	2017-2019	36,074
	2018	2018-2020	18,026
Total			**110,548**

The following table shows the outstanding at target number of performance shares conditionally awarded to selected key employees, in accordance with the Besi 2014 Framework Incentive Plan (award numbers adjusted for two for one stock split):

Performance shares	**Year of grant**	**Three-year performance period**	**Number of performance shares**
Key employees	2016	2016-2018	159,846
Key employees	2017	2017-2019	140,576
Key employees	2018	2018-2020	114,184
Total			**414,606**

Fair value measurement performance shares

2014 Framework Incentive Plan (Board of Management and other key employees)

For the awards made in 2018, the grant date fair value of the 50% portion with a TSR performance condition is € 19.50 (2017: € 18.84 adjusted for the two for one stock split) and has been derived using a Monte Carlo Simulation model. The significant inputs into the model were:

	2018	**2017**
Market price of the Company's ordinary shares (in euro)	31.25	23.98
Expected volatility	42%	43%
Expected dividend yield	7.16%	3.63%
Vesting period (in years)	3	3
Risk-free interest rate	(0.38%)	(0.65%)

For the 2018 awards, the grant date fair value of the 50% portion with a NIR performance condition is € 25.21 (2017: € 21.51 adjusted for the two for one stock split). This fair value has been derived from the market price of the Company's ordinary shares at the grant date, adjusted based on the present value for expected dividends over the three-year vesting period.

The expenses related to share-based payment plans recognized in the Statement of Comprehensive Income are as follows:

(euro in thousands)	**Year ended December 31,**	
	2018	**2017**
Performance shares granted and delivered to the Board of Management	4,551	1,968
Performance shares granted and delivered to key employees	2,237	435
Conditional performance shares Board of Management	787	902
Conditional performance shares key employees	2,416	3,558
Total expense recognized as personnel expenses	**9,991**	**6,863**

22. Equity

At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares. After the effectuation of this stock split in May 2018, Besi's authorized share capital consists of 160,000,000 ordinary shares, nominal value € 0.01 per share, and 160,000,000 preference shares, nominal value € 0.01 per share.

At December 31, 2018 and December 31, 2017, 73,569,611 and 74,551,078 (adjusted for the two for one stock split) ordinary shares were outstanding, excluding treasury shares of 6,498,231 and 5,516,764 (adjusted for the two for one stock split), respectively. No preference shares were outstanding at each of December 31, 2018 and December 31, 2017. All issued shares have been paid in full.

Changes in other reserves during 2018 and 2017 were as follows:

(euro in thousands)	Accumulated other comprehensive income	Legal currency translation adjustment	Legal reserve capitalized R&D expenses	Total other reserves
Balance at January 1, 2018	(10,817)	15,455	33,392	38,030
Total comprehensive income (loss) for the period	(410)	7,058	-	6,648
Legal reserve	-	-	3,571	3,571
Balance at December 31, 2018	**(11,227)**	**22,513**	**36,963**	**48,249**
Balance at January 1, 2017	(12,297)	33,105	36,999	57,807
Total comprehensive income (loss) for the period	1,480	(17,650)	-	(16,170)
Legal reserve	-	-	(3,607)	(3,607)
Balance at December 31, 2017	**(10,817)**	**15,455**	**33,392**	**38,030**

Accumulated other comprehensive income (loss) consists of:

(euro in thousands)	December 31, 2018	December 31, 2017
Actuarial gains (losses)	(13,445)	(14,002)
Cash flow hedging reserve	13	884
Deferred taxes	1,442	1,538
Other	763	763
Accumulated other comprehensive income (loss)	**(11,227)**	**(10,817)**

Dividends

Proposed for approval at the Annual General Meeting of Shareholders to be held on April 26, 2019 (not recognized as a liability as at December 31, 2018 and December 31, 2017):

(euro in thousands)	Year ended December 31, 2018	2017
€ 1.67 per ordinary share (2017: € 2.32 adjusted for the two for one stock split)	**122,861**	**172,961**

The Board of Management proposes to allocate the part of the net income for the year 2018 remaining after payment of the dividend to the retained earnings. The Supervisory Board has approved this proposal.

For further notes to the Company's equity, reference is made to the Notes to the Parent Company Financial Statements.

23. Commitments and contingencies

The Company leases certain facilities and equipment under operating leases. The required minimum lease commitments are as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Within one year	3,877	3,933
After one year but not more than five years	7,734	10,401
After five years	876	1,495
Total	**12,487**	**15,829**

The amount above consists of committed rental expense amounting to € 11.8 million and € 14.8 million as of December 31, 2018 and 2017. In addition, the Company has an unconditional obligation related to the purchase of materials and equipment totaling € 73.0 million and € 127.0 million as of December 31, 2018 and 2017, respectively. Lease and rental expenses amounted to € 3.9 million and € 3.5 million for the years ended December 31, 2018 and 2017, respectively.

Research and development subsidies and credits available to offset research and development expenses were € 3.0 million in 2018 and € 2.5 million in 2017. R&D grants have been received from the EU, from the Österreichische Forschungs-förderungsgesellschaft and from local governments.

24. Revenue

The effect of initially applying IFRS 15 on the Company's revenue from contracts with customers is described in Note 2 (Revenue recognition). Refer to page 93 under the significant accounting policy note for a description of the key products and services provided by the Company to its customers.

Disaggregation of revenue

The following table disaggregates the geographical distribution of the Company's revenue billed to customers:

(euro in thousands)	Year ended December 31, 2018	2017
China	128,286	122,628
Ireland	83,373	86,749
Malaysia	56,647	64,368
Taiwan	52,313	48,957
United States	34,922	35,835
Thailand	25,277	21,056
Germany	23,300	17,514
Singapore	23,011	87,417
Korea	17,402	26,128
Other Asia Pacific	47,680	48,896
Other Europe	26,092	26,528
Rest of the World	6,953	6,709
Total revenue	**525,256**	**592,785**

The following table disaggregates the Company's revenue of the three different operating segments (Product Groups):

(euro in thousands)	Year ended December 31, 2018	2017
Die Attach	401,119	483,436
Packaging	101,121	90,316
Plating	23,016	19,033
Total revenue	**525,256**	**592,785**

The Company's revenue is generated by shipments to leading US, European and Asian multinational chip manufacturers, assembly subcontractors and electronics and industrial companies.

The effect of initially applying IFRS 15 on the Company's revenue from contracts with customers is described in Note 2. Due to the transition method chosen in applying IFRS 15, comparative information has not been restated to reflect the new requirements. In accordance with IFRS 15.C8, if the Company would have applied the previous IFRS standards on revenue recognition in the current reporting period the following financial statement line items would have been affected:

- Revenue would have decreased by € 1.3 million to € 524.0 million;
- Cost of sales would have decreased by € 1.4 million to € 225.4 million, with an equal offsetting increase in warranty expenses;
- Contract liabilities to an amount of € 8.4 million would not have been recognized at December 31, 2018, partly offset by an increase of € 3.2 million in the warranty provision.

Contract balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers.

(euro in thousands)	December 31, 2018	December 31, 2017
Receivables, which are included in trade receivables and other receivables	106,347	151,654
Contract assets	-	-
Contract liabilities	12,867	8,213

Contract assets primarily relate to the Company's rights to consideration for fulfilled but not yet invoiced performance obligations at the reporting date and the amount of these assets is non-material.

The amount of contract liabilities in the table below primarily relates to the advance consideration received from customer and for some customers on extended warranty provided, for which revenue is recognized upon fulfilment of the performance obligation.

Significant changes in the contract liabilities are as follows:

(euro in thousands)	2018	2017
Balance at January 1	8,213	7,891
Effect of adoption of new accounting standards (Note 2)	9,649	-
Balance at January 1 adjusted	**17,862**	**7,891**
Revenue recognized that was included in the contract liability balance at the beginning of the period	(12,310)	(7,891)
Increases due to cash received, excluding amounts recognized as revenue during the period	7,183	8,213
Foreign currency translation	132	-
Balance at December 31	**12,867**	**8,213**

An amount of € 2,494 in the contract liabilities as per December 31, 2018 is expected to be recognized after more than one year.

Transaction price allocated to the remaining performance obligations

The following table includes revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partly unsatisfied) at the reporting date with:

(euro in thousands)	2019	2020	Total
Transaction price allocated to remaining performance obligations	11,829	463	12,292

25. Segment, geographic and customer information

Geographical information

The following table summarizes revenue, non-financial assets and total assets of the Company's operations in the Netherlands, Switzerland, Austria, the US and Asia Pacific, the significant geographic areas in which the Company operates. Intra-area revenues are based on the sales prices at arm's length:

(euro in thousands)	The Netherlands	Switzerland	Austria	United States	Asia Pacific	Total
Year ended December 31, 2018						
Total revenue	105,501	422,477	120,594	33,213	356,373	1,038,158
Intercompany revenue	(43,154)	(270,820)	(5,894)	(147)	(192,887)	(512,902)
External revenue	**62,347**	**151,657**	**114,700**	**33,066**	**163,486**	**525,256**
Non-financial assets	14,364	71,535	9,578	-	16,507	111,984
Capital expenditures	1,081	303	375	-	4,814	6,573
Year ended December 31, 2017						
Total revenue	92,705	507,346	120,786	27,843	236,373	985,053
Intercompany revenue	(4,851)	(145,971)	(6,805)	57	(234,698)	(392,268)
External revenue	**87,854**	**361,375**	**113,981**	**27,900**	**1,675**	**592,785**
Non-financial assets	13,340	25,211	43,207	8,805	14,782	105,345
Capital expenditures	1,630	357	621	-	2,426	5,034

Major customer(s)

For the year ended December 31, 2018, one customer represented more than 10% of the Company's revenue. This customer represented 16.1% of the Company's revenue. For the year ended December 31, 2017, two customers represented more than 10% of the Company's revenue. One customer represented 15.3% of the Company's revenue and the other one represented 11.0% of the Company's revenue.

26. Related-party transactions

BE Semiconductor Industries N.V. and all its subsidiaries are consolidated and all transactions between these entities have been eliminated in these financial statements. There are no non-consolidated companies considered as related parties.

The Board of Management and the Supervisory Board are considered "Key Management Personnel" in accordance with IAS 24. The remuneration of the Board of Management and the Supervisory Board is as follows.

Remuneration of the Board of Management

The remuneration of the member of the Board of Management is determined by the Supervisory Board, all with due observance of the Remuneration Policy adopted by the General Meeting of Shareholders. The Supervisory Board is required to present any scheme providing for the remuneration of the member of the Board of Management in the form of shares or options to the General Meeting of Shareholders for adoption.

The total cash remuneration and related costs of the member of the Board of Management for the years ended December 31, 2018 and 2017, were as follows:

(in euros)	Year ended December 31,	
	2018	2017
R.W. Blickman		
Salaries and other short-term employee benefits[1]	1,431,766	1,349,574
Post-employment benefits[2]	38,912	38,913
Equity compensation benefits: Incentive Plan	786,782	902,173
Equity compensation benefits: Discretionary grant	4,551,000	1,967,614
Total	**6,808,460**	**4,258,274**

[1] Salaries include a bonus earned over the applicable year, which will be payable in the second quarter of the year thereafter. Furthermore, other benefits include expense compensation, medical insurance and social security premiums.
[2] The pension arrangements for the member of the Board of Management are defined contribution plans. The Company does not have further pension obligations beyond an annual contribution.

Remuneration of the Supervisory Board

The aggregate remuneration paid to current members of the Supervisory Board was € 359 in 2018 and € 306 in 2017. The remuneration of the Supervisory Board is determined by the General Meeting of Shareholders.

Effective April 26, 2018 the General Meeting of Shareholders approved the proposal of the Supervisory Board, upon recommendation of its Remuneration and Nomination Committee to upward adjust the remuneration of the Supervisory Board by 10%. Furthermore, it was approved to introduce an intercontinental travel allowance to retain and be able to attract international Supervisory Board members.

The increase and current remuneration is as follows:

- Member of the Supervisory Board, including committee membership(s), from € 57,000 to € 62,700.
- Member of the Supervisory Board, and Chair of a committee, from € 60,000 to € 66,000.
- Chairman of the Supervisory Board, from € 72,000 to € 79,200.
- Meeting attendance fees, including conference calls, none.
- Intercontinental travel allowance for physical attendance of at minimum three meetings, € 6,000.

The total cash remuneration of the members of the Supervisory Board for the years ended December 31, 2018 and 2017 was as follows:

(in euros)	2018	2017
T. de Waard	76,800	72,000
D.J. Dunn	64,088	60,000
K.W. Loh	60,884	57,000
M. ElNaggar	60,884	57,000
J.E. Vaandrager	20,000	60,000
N. Hoek	44,967	-
C. Bozotti	31,350	-
Total	**358,973**	**306,000**

Ordinary shares, options and performance shares held by the member of the Board of Management

The aggregate number of ordinary shares held by the current member of the Board of Management as of December 31, 2018 and 2017 (adjusted for the two for one stock split), was as follows:

Ordinary number of shares	Year ended December 31, 2018	2017
R.W. Blickman	1,623,956	1,499,746
Total	**1,623,956**	**1,499,746**

Performance shares	Year of grant	Three-year performance period	Number of performance shares
R.W. Blickman	2016	2016-2018	56,448
	2017	2017-2019	36,074
	2018	2018-2020	18,026
Total			**110,548**

The performance shares awarded will vest at the end of the three-year performance period, depending on the actual performance of the Company.

Ordinary shares held by members of the Supervisory Board

The aggregate number of ordinary shares held by the current members of the Supervisory Board as of December 31, 2018 and 2017, was as follows:

Ordinary shares	Number of shares
T. de Waard	49,220
Total	**49,220**

27. Selected operating expenses and additional information

Personnel expenses for all employees were as follows:

(euro in thousands)	Year ended December 31, 2018	2017
Wages and salaries	86,582	82,043
Social security expenses	7,703	7,966
Pension and retirement expenses defined contribution	4,543	4,154
Pension and retirement expenses defined benefit	1,865	1,818
Curtailment gain	(832)	-
Share-based compensation plans	9,991	6,863
Total personnel expenses	**109,852**	**102,844**

The average number of fulltime equivalent employees during 2018 and 2017 was 1,737 and 1,652, respectively. For pension and retirement expenses, reference is made to Note 21.

The total number of fulltime equivalent employees per department was:

	December 31, 2018	December 31, 2017
Sales and Marketing	439	442
Manufacturing and Assembly	742	773
Research and Development	349	349
General and Administrative	162	160
Total number of personnel	**1,692**	**1,724**

As of December 31, 2018 and 2017, a total of 163 and 181 fulltime equivalent employees respectively, were employed in the Netherlands.

28. Financial income and expense

The components of financial income and expense were as follows:

(euro in thousands)	Year ended December 31, 2018	2017
Interest income	23	641
Subtotal financial income	**23**	**641**
Interest expense	(9,770)	(5,575)
Hedging results	(7,495)	(3,500)
Net foreign currency results	(542)	(1,788)
Subtotal financial expense	**(17,807)**	**(10,863)**
Financial income (expense), net	**(17,784)**	**(10,222)**

Hedging results have mainly increased due to increased volume and interest differences between Swiss franc and euro on the one hand and US dollar on the other hand.

29. Earnings per share

The following table reconciles ordinary shares outstanding at the beginning of the year to average shares outstanding used to compute income per share. The share and per share data have been retroactively adjusted for the two for one stock split effected in May 2018.

	2018	2017
Shares outstanding at beginning of the year	74,551,078	74,652,618
Shares re-issued from treasury shares for the vesting of performance stock awards (LTI)	467,692	756,170
Shares re-issued from treasury shares for the vesting of shares discretionary granted	175,100	143,000
Shares bought under the share repurchase program	(1,624,259)	(960,482)
Other changes	-	(40,228)
Shares outstanding at end of the year	**73,569,611**	**74,551,078**
Average shares outstanding - basic	**74,440,864**	**74,673,574**
Dilutive effect of outstanding performance shares	670,776	986,014
Dilutive effect of 2016 and 2017 Convertible Notes	9,642,429	5,986,156
Average shares outstanding - diluted	**84,754,069**	**81,645,744**

Net income in 2018 used in calculating dilutive earnings per share amounts to € 142.7 million (2017: € 177.0 million) and is adjusted for the after tax effects of interest charged related to the 2016 and 2017 Convertible Notes.

30. Financial instruments, financial risk management objectives and policies

Fair value of financial instruments

The Company assumes that the book value of the Company's financial instruments, which consist of cash and cash equivalents, deposits, trade receivables and accounts payable, does not significantly differ from their fair value due to the short maturity of those instruments and to the fact that interest rates are floating or approximate the rates currently available to the Company. For the valuation of the Convertible Notes reference is made to Note 19.

The Company uses the following hierarchy for determining and disclosing the fair value of financial instruments by valuation technique:

Level 1: Quoted (unadjusted) prices in active markets for identical assets or liabilities.

Level 2: Other techniques for which all inputs which have a significant effect on the recorded fair value are observable, either directly or indirectly.

Level 3: Techniques which use inputs which have a significant effect on the recorded fair value that are not based on observable market data.

The fair values of financial assets and financial liabilities, together with the carrying amounts in the Consolidated Statements of Financial Position, are as follows:

(euro in thousands)				December 31, 2018
	Note	Carrying amount	Level	Fair value
Financial assets				
Forward exchange contracts	7	2,143	2	2,143
Total		**2,143**		**2,143**
Financial liabilities				
Forward exchange contracts	17	138	2	138
Long-term debt and financial leases	19	271,824	1	276,757
Total		**271,962**		**276,895**

(euro in thousands)				December 31, 2017
	Note	Carrying amount	Level	Fair value
Financial assets				
Forward exchange contracts	7	2,647	2	2,647
Total		**2,647**		**2,647**
Financial liabilities				
Forward exchange contracts	17	685	2	685
Long-term debt and financial leases	19	267,274	1	380,750
Total		**267,959**		**381,435**

There were no transfers between levels during the years ended December 31, 2018 and December 31, 2017.

The only recurring fair value measurement is the valuation of forward exchange contracts for hedging purposes. According to IFRS 13 this measurement is categorized as Level 2. Money market funds are part of our cash and cash equivalents and therefore categorized as level 1. Non-recurring fair value measurements were not applicable in the reporting period.

Financial risk management objectives and policies

Risk management framework

The Company is exposed to a variety of financial risks, such as foreign currency risk, interest rate risk, credit risk, market risk, liquidity risk and capital risk. These risks are inherent to the way the Company operates as a multinational with a number of local operating companies.

The Company's overall risk management policy is established to identify and analyze the risks faced by the Company, to set appropriate risk limits and controls, and to monitor risks and adherence to risk limits. Risk management policies and systems are managed at central level and reviewed regularly to reflect changes in market conditions and the Company's activities.

All material findings that result from the use of the Company's risk management policy are discussed with our Audit Committee and Supervisory Board.

The Company, through its training, management standards and procedures, such as guidelines and instructions governing hedging of financial risks, developed a disciplined and constructive control environment in which all employees understand their roles and obligations. In addition, the Company performs several reviews at all significant operating companies, such as reviews of the foreign currency positions. The Company's policies, specifically regarding to foreign currency hedging, interest rate, credit, market and liquidity risks, are further described in the remainder of this Note.

Foreign exchange

Due to the international scope of the Company's operations, the Company is exposed to the risk of adverse movements in foreign currency exchange rates. The Company is primarily exposed to fluctuations in the value of the euro, Swiss franc, Singapore dollar, Malaysian ringgit and Chinese yuan against the US dollar and US dollar-linked currencies, since approximately 67% of its sales in 2018 (2017: approximately 82%) are denominated in US dollar. Furthermore, due to the Company's ongoing transfer of the supply chain to Asia, the Company is increasingly exposed to fluctuations of the Malaysian ringgit, Chinese yuan and Singapore dollar against the euro and US dollar.

The Company seeks to protect itself from adverse movements in foreign currency exchange rates by hedging firmly committed sales contracts, which are denominated in foreign currencies through the use of forward foreign currency exchange contracts. In addition, the Company also uses forward foreign currency exchange contracts to hedge balance sheet positions that are denominated in a foreign currency. During 2018 and 2017, the Company did not have any derivative financial instruments that were held for trading or speculative purposes. Furthermore, the Company does not use financial instruments to hedge the translation risk related to equity, intercompany loans of a permanent nature and earnings of foreign subsidiaries. The Company has adopted the cash flow hedge model in line with IFRS 9. In this hedging model, the effective part of a hedge transaction is reported as a component of other comprehensive income, which is reclassified to earnings in the same period(s) in which the hedged forecasted transaction affects earnings.

Due to cash flow hedge transactions, € 13 was reported as other comprehensive income at December 31, 2018. The amount in 2018 released from equity in revenue in the Consolidated Statement of Comprehensive Income was € 1,333. The cash flow hedging reserve included in equity comprises the effective portion of the cumulative net change in the fair value of cash flow hedges related to hedged transactions that have not yet occurred. The ineffective part of the hedges recognized, directly in the Consolidated Statement of Comprehensive Income was a loss of € 1,082 in 2018 and a loss of € 64 in 2017.

The movement of the cash flow hedging reserve is as follows:

(euro in thousands)	**2018**	**2017**
Balance at January 1	884	(291)
Amount recognized in equity	(3,286)	56
Amount recycled in Consolidated Statement of Comprehensive Income	1,333	1,055
Amount reclassified to Consolidated Statement of Comprehensive Income due to ineffectiveness	1,082	64
Balance at December 31	**13**	**884**

The Company has exposure to credit risk to the extent that the counterparty to the transaction fails to perform according to the term of the contract. The amount of such credit risk, measured as the fair value of all forward foreign currency exchange contracts that have a positive fair value position, was € 2,143 and € 2,647 at December 31, 2018 and 2017, respectively. The Company believes that the risk of significant loss from credit risk is remote, because it deals with credit-worthy financial institutions. The Company does not, in the normal course of business, demand collateral from the counterparties.

Following is a summary of the Company's forward foreign currency exchange contracts at foreign currency contract rate:

(euro in thousands)	**December 31, 2018**	**December 31, 2017**
To sell US dollars for euros	14,066	26,227
To sell US dollars for Swiss francs	122,325	127,526
To sell Swiss francs for US dollars	2,183	8,254
To sell US dollars for Malaysian ringgits	9,367	27,906
To sell euros for US dollars	13,044	607
To sell euros for Malaysian ringgits	4,273	8,755
To sell euros for Singapore dollars	1,243	-
To sell Swiss francs for euros	-	-
To sell euros for Swiss francs	71,835	76,941
To sell Malaysian ringgits for euros	464	4,029
To sell Malaysian ringgits for Swiss francs	675	2,000
To sell Malaysia ringgits for US dollars	4,812	-
To sell Chinese yuan for euros	3,316	-
Total	**247,603**	**282,245**

The contracts to sell US dollars for euros and Swiss francs predominantly apply for hedge accounting. All other forward foreign currency exchange contracts are economic hedges.

At December 31, 2018 and 2017, the unrealized gain on forward foreign currency exchange contracts that were designated as a hedge of firmly committed transactions amounted to € 2,005 and € 1,962, respectively.

The fair value of the Company's forward foreign currency exchange contracts, which are categorized as Level 2 is as follows:

(euro in thousands)		2018		2017
	Positive	Negative	Positive	Negative
Forward foreign currency exchange contracts				
Fair value	**2,143**	**138**	**2,647**	**685**

The fair value of the forward foreign currency exchange contracts is included in the Company's other receivables and the other payables. The Company recorded no changes in the fair value of the financial instruments that were attributable to changes in the credit risk of the forward exchange contracts. Cash flows related to foreign currency contracts are expected to occur as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Within 0-3 months	245,694	270,251
From 3-6 months	-	10,441
From 6-9 months	1,909	1,553
Total	**247,603**	**282,245**

The Company's principal financial liabilities, other than derivatives, comprise of bank loans and overdrafts, Convertible Notes, financial leases and trade payables. The main purpose of these financial liabilities is to finance the Company's operations. The Company has various financial assets such as trade receivables and cash and short-term deposits, which arise directly from its operations.

The Company enters into derivative transactions exclusively with forward currency contracts. The purpose of these transactions is to manage the currency risks arising from the Company's operations.

The Company's policy is, and has been throughout 2018 and 2017, that no trading in derivatives shall be undertaken. The main risks arising from the Company's financial instruments are foreign currency risk, interest rate risk, credit risk and liquidity risk.

Foreign currency risk
As a consequence of the global nature of Besi's businesses, its operations, reported financial results and cash flows are exposed to the risks associated with fluctuations in exchange rates between the euro and other major world currencies. Currency exchange rate movements typically also affect economic growth, inflation, interest rates, government actions and other factors. These changes can cause the Company to adjust its financing and operating strategies.

The discussion below of changes in currency exchange rates does not incorporate these other economic factors. For example, the sensitivity analysis presented in the foreign exchange rate risk discussion below does not take into account the possibility that rates can move in opposite directions and that gains from one category may or may not be offset by losses from another category. As currency exchange rates change, translation of the statements of operations of Besi's international business into euro affects year-over-year comparability.

Besi's currency risk exposure primarily occurs because the Company generates a portion of its revenue in currencies other than the euro while the major share of the corresponding cost of sales is incurred in euro, Swiss franc, Malaysian ringgit and Chinese yuan. The percentage of its consolidated net revenue which is presented by US dollar or US dollar-linked currencies amounted to approximately 67% and 82% of total revenue in the years ended December 31, 2018 and 2017, respectively, whereas revenue denominated in euro amounted to approximately 33%. Approximately 29% of its costs and expenses were denominated in euro, 12% in Swiss franc, 31% in Malaysian ringgit, 10% in Chinese yuan and the remaining 18% in various currencies. In order to mitigate the impact of currency exchange rate fluctuations, Besi continually assesses its remaining exposure to currency risks and hedges such risks through the use of derivative financial instruments. The principal derivative financial instruments currently used by the Company to cover foreign currency exposures are forward foreign currency exchange contracts that qualify for hedge accounting.

The following table presents a sensitivity analysis of the Company's profit before tax (due to changes in the fair value of monetary assets and liabilities) and the Company's equity (due to changes in the fair value of forward exchange contracts) related to reasonable potential changes in the US dollar exchange rate compared to the euro, Swiss franc and Malaysian ringgit, with all other variables held constant. This comparison is done as most transactions are in US dollar and are hedged against the local currencies of the main operations in the Netherlands, Switzerland and Malaysia. The analysis includes the effects of fair value changes of the financial instruments used to hedge the currency exposures and focuses only on balance sheet positions.

(euro in thousands)			2018		2017
		Effect on profit before tax	Effect on equity	Effect on profit before tax	Effect on equity
Increase/decrease in US dollar rate compared to euro	+10%	-	(1,000)	(300)	(2,000)
	-10%	-	5,000	700	6,000
Increase/decrease in US dollar rate compared to Swiss franc	+10%	-	(5,000)	(700)	(6,000)
	-10%	-	5,000	700	6,000

The current outstanding forward exchange contracts have been included in this calculation.

Interest rate risk

The Company has interest-bearing assets and liabilities exposing it to fluctuations in market interest rates. The Company is hardly exposed to the risk of changes in market interest rates through borrowing activities due to very limited debt with floating interest rates. Given the Company's cash position, fluctuations in market interest rates are affecting the Company's results. An increase of interest rates will have a positive effect, while a decrease of market interest rates will negatively impact the Company's results. No derivative interest rate related swaps have been entered into for trading or speculative purposes or to manage interest exposures.

Credit risk

Credit risk is the risk that the counterparty will not meet its obligations under a financial instrument or customer contract, leading to a financial loss. The Company is exposed to credit risk from its operating activities (primarily for trade receivables) and from its financing activities for cash and cash equivalents and derivative financial instruments. With its treasury and cash investment policies the Company manages exposure to credit risks on an ongoing basis including monitoring of the creditworthiness of counterparties. The Company does not anticipate on non-performance by counterparties given their high creditworthiness expressed in good credit rates.

The Company's maximum exposure to credit risk for financial instruments are the carrying amounts of financial assets as illustrated in the table at the beginning of Note 30. The Company does not hold collateral as security.

Cash and cash equivalents

The Company is managing the credit risk from balances with banks and cash equivalents in accordance with the Company's cash investment policy. In addition to preserving the principal amount main objectives of this policy are maintaining appropriate liquidity for business operations, diversifying cash investments to minimize risk from inappropriate investments and concentrating the Company's cash at the highest level, i.e. BE Semiconductor Industries N.V. Diversification is aimed by distributing the cash and cash equivalents over at least five counterparties including money market funds. Cash pool arrangements based on zero-balancing are in place to concentrate cash enabling BE Semiconductor Industries N.V. to fulfil the role of internal bank.

The Company invests cash and cash equivalents in (short-term) deposits with financial institutions that have good credit ratings and in triple A money market funds that invest in highly rated short-term debt securities of governments, financial institutions and corporates. These investments are readily convertible to a known amount in cash and are subject to an insignificant risk of change in value.

Trade receivables and other receivables

The Company has established a credit policy under which credit evaluations are performed on all customers requiring credit over specified thresholds. The Company's exposure to credit risk is influenced mainly by the individual characteristics of each customer. However, management also considers the demographics of the Company's customer base, including the default risk of the industry and country in which customers operate, as these factors may have an influence on credit risk. As the Company's revenue is generated by shipments to Asian manufacturing operations of leading US, European and Asian semiconductor manufacturers and subcontractors, an industry and geographical concentration of credit risk exists, however, this risk is reduced through the long-term relationships with its customers.

Ageing of trade receivables and other receivables:

(euro in thousands)	Total	Impaired	Current					Past due
				< 30 days	30–60 days	60–90 days	90–120 days	> 120 days
2018	114,362	(821)	66,570	13,770	8,684	11,088	4,765	10,306
2017	159,168	(772)	114,166	22,865	12,050	4,470	891	5,498

Expected credit loss assessment

The Company recognizes an allowance for expected credit losses ("ECLs"). ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive, discounted at an approximation of the original effective interest rate. For trade receivables and contract assets, the Company applies a simplified approach in calculating ECLs. Therefore, the Company does not track changes in credit risk, but instead recognizes a loss allowance based on lifetime ECLs at each reporting date. The Company has established a provision matrix that is based on its historical credit loss experience, adjusted for forward-looking factors specific to the debtors and the economic environment. In addition, the Company has, as an addition (sensitivity) analysis compared the outcome based on historical losses with the credit ratings of its largest individual customers.

Based on the above, an amount of € 150 of impairment has been recognized on trade receivables and contract assets as per December 31, 2018.

Movement in impairment of trade receivables and other receivables. Comparative amounts for 2017 represent the allowance account for impairment losses under IAS 39:

(euro in thousands)	2018	2017
Balance at January 1	772	713
Additions	41	89
Utilized	-	(2)
Foreign currency translation	8	(28)
Balance at December 31	**821**	**772**

Forward exchange contracts

The forward exchange contracts are with multiple counterparties that have high credit ratings. Currently, the Company does not expect any counterparty to fail to meet its obligations.

Market risk

Market risk is the risk that changes in market prices, such as foreign exchange rates, interest rates and equity prices, will affect the Company's income or the value of its holdings of financial instruments. The objective of market risk management is to manage and control market risk exposures within acceptable parameters, while optimizing the return. The Company buys and sells derivatives, and also incurs financial liabilities, in order to manage market risks. All such transactions are carried out within the guidelines set by the Company.

Liquidity risk

Liquidity risk is the risk that the Company will encounter difficulty in meeting the obligations associated with its financial liabilities that are settled by delivering cash or another financial asset. The Company's liquidity needs are affected by many factors including uncertainties of the global economy and the semiconductor industry resulting in fluctuating cash requirements. The Company believes that it will have sufficient liquidity to meet its current liabilities including expected capital expenditures and repayment obligations in 2018. The Company monitors its risk to a shortage of funds by reviewing cash flows of all entities throughout the year. The Company intends to return cash to the shareholders on a regular basis in the form of dividend payments and, subject to actual and anticipated liquidity requirements and other relevant factors, share buybacks.

The table below summarizes the maturity profile of the Company's financial liabilities at December 31, 2018 and 2017, based on contractual undiscounted payments:

(euro in thousands)	On demand	Less than 3 months	3 to 12 months	1 to 5 years	> 5 years	Total
Year ended December 31, 2018						
Convertible Notes (assuming no conversion)	-	-	-	-	300,000	300,000
Other long-term debt and financial leases	-	-	1,502	-	-	1,502
Interest payable convertible	-	-	4,000	16,000	875	20,875
Other interest payable long-term debt and financial leases	7	1,236	-	-	-	1,243
Accounts payable	881	32,070	207	-	-	33,158
Other payables	860	10,520	13,452	-	-	24,832
Total	**1,748**	**43,826**	**19,161**	**16,000**	**300,875**	**381,610**

(euro in thousands)	On demand	Less than 3 months	3 to 12 months	1 to 5 years	> 5 years	Total
Year ended December 31, 2017						
Convertible Notes (assuming no conversion)	-	-	-	-	300,000	300,000
Other long-term debt and financial leases	-	-	11,228	79	-	11,307
Interest payable convertible	-	-	4,000	20,000	875	24,875
Other interest payable long-term debt and financial leases	-	24	71	-	-	95
Accounts payable	1,123	61,340	258	-	-	62,721
Other payables	1,383	12,368	14,568	322	-	28,641
Total	**2,506**	**73,732**	**30,125**	**20,401**	**300,875**	**427,639**

It is not expected that the cash flows included in the maturity profile could occur significantly earlier, or at significantly different amounts.

Capital management

The primary objective of the Company's capital management is to ensure healthy capital ratios, with focus on liquidity and financial stability throughout the industry cycles, in order to support its business and maximize shareholder value.

The Company manages its capital structure and makes adjustments to it, in light of changes in economic conditions. To maintain or adjust the capital structure, the Company may make a dividend payment to shareholders, return capital to shareholders or issue new shares. No changes were made in the objectives, policies or processes during the years ended December 31, 2018 and December 31, 2017. The Company only regards equity as capital. This capital is managed using solvency ratio (excluding intangible assets) and return on investment.

(euro in thousands, except for percentages)	2018	2017
Equity	372,188	434,132
Solvency ratio	48.2%	49.6%
Solvency ratio (excluding intangible fixed assets)	41.9%	44.6%
Return on average investment	33.8%	44.4%

The return on average investment is calculated using the opening and closing balance of equity and the net income of 2018.

The total number of ordinary shares that will be awarded under the 2014 and the 2017 Framework Incentive Plan may not exceed 1.5% of the total number of outstanding shares at December 31 of the year prior to the year in which the award is made.

31. Events after the balance sheet date

Subsequent events were evaluated up to February 19, 2019, which is the date the Financial Statements included in this Annual Report were approved. There are no events to report.

Parent Company Balance Sheet

(Before appropriation of the result)

(euro in thousands)	Note	December 31, 2018	December 31, 2017
Assets			
Intangible assets	2	**808**	**584**
Investments in subsidiaries	3	307,308	306,126
Loans due from subsidiaries	3	20,351	14,437
Deposits		50,000	-
Financial fixed assets		**377,659**	**320,563**
Total fixed assets		**378,467**	**321,147**
Amounts due from subsidiaries		6,605	22,436
Other receivables		1,297	875
Receivables		**7,902**	**23,311**
Deposits		130,000	-
Cash and cash equivalents		**295,368**	**509,362**
Total current assets		**433,270**	**532,673**
Total assets		**811,737**	**853,820**
Shareholders' equity, provisions and liabilities			
Share capital	4	800	400
Share premium	4	197,280	222,322
Retained earnings	4	(10,397)	389
Legal reserves	4	59,476	48,847
Other reserves	4	(11,227)	(10,817)
Undistributed result	4	136,256	172,991
Shareholders' equity		**372,188**	**434,132**
Provisions		2,892	3,113
Provisions		**2,892**	**3,113**
Convertible Notes	6	271,790	267,195
Non-current liabilities		**271,790**	**267,195**
Trade payables		4,932	1,422
Amounts due to subsidiaries		158,233	145,332
Other payables		1,702	2,626
Current liabilities		**164,867**	**149,380**
Total shareholders' equity, provisions and liabilities		**811,737**	**853,820**

Parent Company Statement of Income and Expense

(euro in thousands)	Note	Year ended December 31, 2018	2017
General and administrative expenses		7,640	2,720
Total operating expenses		**7,640**	**2,720**
Operating loss		**(7,640)**	**(2,720)**
Financial income	8	1,801	502
Financial expense	8	(10,116)	(5,508)
Financial income (expense), net		**(8,315)**	**(5,006)**
Income (loss) before income tax		**(15,955)**	**(7,726)**
Income tax expense (income)		(6,140)	(84)
Income from subsidiaries, after taxes	3	146,071	180,633
Net income		**136,256**	**172,991**

Notes to the Parent Company Financial Statements

1. Summary of significant accounting policies

The Financial Statements of the parent company have been prepared using the option of article 362.8 of Book 2 of the Netherlands Civil Code, meaning that the accounting principles used are the same as for the Consolidated Financial Statements.

Foreign currency amounts have been translated, assets and liabilities have been valued, and net income has been determined, in accordance with the principles of valuation and determination of income presented in the summary of significant accounting policies included in the Notes to the Consolidated Financial Statements. Subsidiaries of the parent company are accounted for using the net equity value. The net equity value is determined on the basis of IFRS accounting principles applied in the Consolidated Financial Statements. In case of a negative net equity value of a subsidiary, the negative value is deducted from the loan due from the respective subsidiary.

In addition, the Company will apply the option provided under RJ 100.107a to eliminate the impact of IFRS 9 on intercompany receivables and payables in the parent company financial statements against their book value of these receivables and payables in order to have no impact on the reconciliation between the consolidated equity and company equity position.

The remuneration paragraph is included in Note 26 of the Consolidated Financial Statements.

2. Intangible assets

Intangible assets, net consist of the following:

(euro in thousands)	**Software**
Balance at January 1, 2018	
Cost	2,067
Accumulated amortization	(1,483)
Other intangible assets, net	**584**
Changes in book value in 2018	
Capital expenditures	606
Amortization	(382)
Total changes	**224**
Balance at December 31, 2018	
Cost	2,673
Accumulated amortization	(1,865)
Other intangible assets, net	**808**

The intangible fixed assets consist of capitalized licenses and are amortized in three years.

3. Financial fixed assets

Investments in subsidiaries

The movement was as follows:

(euro in thousands)	**Investment in subsidiaries**	**Loans due from subsidiaries**	**Total**
Balance at January 1, 2018	306,126	14,437	320,563
Effect of adoption of new accounting standards (Note 2 Consolidated Financial Statements)	(6,188)	-	(6,188)
Balance at January 1, 2018 adjusted	299,938	14,437	314,375
Income for the period	146,071	-	146,071
Negative equity adjustments	(1,515)	1,515	-
Loans	-	3,288	3,288
Transfer to amounts due from subsidiaries (short-term)	-	(13)	(13)
Dividend payments	(143,284)	-	(143,284)
Changes in accumulated other comprehensive income	(426)	-	(426)
Currency translation adjustment	6,524	1,124	7,648
Balance at December 31, 2018	**307,308**	**20,351**	**327,659**

(euro in thousands)	Investment in subsidiaries	Loans due from subsidiaries	Total
Balance at January 1, 2017	196,430	55,047	251,477
Income for the period	180,633	-	180,633
Negative equity adjustments	(3,234)	3,234	-
Transfer to amounts due from subsidiaries (short-term)	-	(11,736)	(11,736)
Repayments	-	(27,714)	(27,714)
Purchase of non-controlling interest	1,681	-	1,681
Dividend payments	(57,642)	-	(57,642)
Changes in accumulated other comprehensive income	1,503	-	1,503
Currency translation adjustment	(13,245)	(4,394)	(17,639)
Balance at December 31, 2017	**306,126**	**14,437**	**320,563**

The negative equity adjustments in the movement schedule are adjustments of the income for the period related to the net income of the subsidiaries with a negative equity value.

Loans due from/to subsidiaries

Interest on loans from/to subsidiaries is calculated based on monthly base rates plus a market-conform mark-up. An amount of € 24.9 million relates to loans granted by BE Semiconductor Industries N.V. to its US subsidiaries. These loans are repaid upon lenders' demand for repayment. Therefore, no interest is calculated on these loans.

As of December 31, 2018 and 2017, the following subsidiaries are included:

Name	Location and country of incorporation	Percentage
BE Semiconductor Industries USA, Inc.	Chandler, Arizona, USA	100%
BE Semiconductor Industries Holding GmbH	Radfeld, Austria	100%
Besi USA, Inc.	Chandler, Arizona, USA	100%
Besi Singapore Pte. Ltd.	Singapore, Singapore	100%
Besi Korea Ltd.	Seoul, South Korea	100%
Besi Asia Pacific Holding B.V.	Duiven, the Netherlands	100%
Besi Philippines, Inc.	Muntinlupa City, Philippines	100%
Besi Netherlands B.V.	Duiven, the Netherlands	100%
Fico International B.V.	Duiven, the Netherlands	100%
Besi Leshan Co., Ltd.	Leshan, China	100%
Besi Apac Sdn. Bhd.	Shah Alam, Malaysia	100%[1]
ASM Fico (F.E.) Sdn. Bhd.	Shah Alam, Malaysia	99.9%[2]
Fico Hong Kong Ltd.	Hong Kong, China	100%
Meco International B.V.	Drunen, the Netherlands	100%
Meco Equipment Engineers B.V.	Drunen, the Netherlands	100%
Besi North America, Inc.	Chandler, Arizona, USA	100%
Datacon Eurotec GmbH i.L.	Berlin, Germany	100%
Datacon Beteiligungs GmbH	Radfeld, Austria	100%
Besi Austria GmbH	Radfeld, Austria	100%
Esec International B.V.	Duiven, the Netherlands	100%
Besi Switzerland AG	Steinhausen, Switzerland	100%
Esec China Financial Ltd.	Hong Kong, China	100%
Besi (Shanghai) Trading Co., Ltd.	Shanghai, China	100%
Besi Spares and Tooling AG	Steinhausen, Switzerland	100%

[1] In order to comply with local corporate law, a non-controlling shareholding (less than 0.1%) is held by Company Management.
[2] In order to comply with local corporate law, a non-controlling shareholding is held by Company Management.

4. Shareholder's equity

At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares. After the effectuation of this stock split in May 2018, Besi's authorized share capital consists of 160,000,000 ordinary shares and 160,000,000 preference shares, nominal value € 0.01 per share, and 160,000,000 preference shares, nominal value € 0.01 per share.

(euro in thousands, except for share data)	Number of ordinary shares outstanding[1]	Share capital	Share premium	Retained earnings	Legal reserves	Other reserves	Undistri-buted result	Total share-holders' equity[3]
Balance at January 1, 2018	40,033,921	400	222,322	389	48,847	(10,817)	172,991	434,132
Effect of adoption of new accounting standards (Note 2 Consolidated Financial Statements)	-	-	-	(6,188)	-	-	-	(6,188)
Balance at January 1, 2018 adjusted	**40,033,821**	**400**	**222,322**	**(5,799)**	**48,847**	**(10,817)**	**172,991**	**427,944**
Total comprehensive income for the period	-	-	-	-	7,058	(410)	136,256	142,904
Dividend paid to owners of the Company	-	-	-	-	-	-	(174,018)	(174,018)
Legal reserve	-	-	-	(3,571)	3,571	-	-	-
Appropriation of the result	-	-	-	(1,027)	-	-	1,027	-
Equity-settled share-based payments expense	-	-	9,991	-	-	-	-	9,991
Purchase of treasury shares	-	-	(35,467)	-	-	-	-	(35,467)
Deferred tax convertible	-	-	834	-	-	-	-	834
Stock split[2]	40,033,921	400	(400)	-	-	-	-	-
Balance at December 31, 2018	**80,067,842**	**800**	**197,280**	**(10,397)**	**59,476**	**(11,227)**	**136,256**	**372,188**
Balance at January 1, 2017	40,033,921	400	224,482	(4,501)	70,104	(12,297)	65,223	343,411
Total comprehensive income for the period	-	-	-	-	(17,650)	1,480	172,991	156,821
Dividend paid to owners of the Company	-	-	-	-	-	-	(65,302)	(65,302)
Legal reserve	-	-	-	3,607	(3,607)	-	-	-
Appropriation of the result	-	-	-	(79)	-	-	79	-
Equity-settled share-based payments expense	-	-	6,863	-	-	-	-	6,863
Purchase of treasury shares	-	-	(22,811)	-	-	-	-	(22,811)
Re-issued treasury shares	-	-	-	1,362	-	-	-	1,362
Equity component convertible	-	-	13,788	-	-	-	-	13,788
Balance at December 31, 2017	**40,033,921**	**400**	**222,322**	**389**	**48,847**	**(10,817)**	**172,991**	**434,132**

[1] The outstanding number of ordinary shares includes 6,498,231 (after two for one stock split) and 2,758,382 (before two for one stock split) treasury shares at December 31, 2018 and December 31, 2017, respectively.
[2] At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares.
[3] In total an amount of € 18.5 million is classified as a restricted reserve for subsidiaries (2017: € 14.5 million).

Changes in legal and other reserves during 2018 and 2017 were as follows:

(euro in thousands)	Accumulated other comprehensive income (loss)	Legal currency translation adjustment	Legal reserve capitalized R&D expenses	Total other reserves
Balance at January 1, 2018	(10,817)	15,455	33,392	38,030
Total comprehensive income (loss) for the period	(410)	7,058	-	6,648
Legal reserve	-	-	3,571	3,571
Balance at December 31, 2018	**(11,227)**	**22,513**	**36,963**	**48,249**
Balance at January 1, 2017	(12,297)	33,105	36,999	57,807
Total comprehensive income (loss) for the period	1,480	(17,650)	-	(16,170)
Legal reserve	-	-	(3,607)	(3,607)
Balance at December 31, 2017	**(10,817)**	**15,455**	**33,392**	**38,030**

Preference shares

At the AGM of April 26, 2018, the General Meeting of Shareholders approved a stock split of the Company's shares whereby each issued ordinary share was split into two shares. After the effectuation of this stock split in May 2018, Besi's authorized share capital consists of 160,000,000 ordinary shares and 160,000,000 preference shares, nominal value € 0.01 per share, and 160,000,000 preference shares, nominal value € 0.01 per share.

No preference shares were outstanding at December 31, 2018 and December 31, 2017.

In April 2000, the foundation "Stichting Continuïteit BE Semiconductor Industries" (the "Foundation") was established. The Foundation is an independent legal entity and is not owned or controlled by any other legal person. The purpose of the Foundation is to safeguard the interests of the Company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, among other things, the continuity, independence and identity of the Company contrary to such interests. The aim of the preference shares is, among other things, to provide a protective measure against unfriendly take-over bids and other possible unsolicited influences which could threaten the Company's continuity, independence and identity. The issue of preference shares would enable the Company to consider its position in the then-existing circumstances.

By agreement of May 19, 2008, between the Company and the Foundation, which replaces a similar agreement dated April 19, 2002, the Foundation has been granted a call option pursuant to which it may purchase a number of preference shares up to a maximum of the number of ordinary shares issued and outstanding at the time of exercise of this option, minus one.

The Company has also granted to the Foundation the right to file an application for an inquiry into the policy and conduct of business of the Company with the Enterprise Chamber of the Amsterdam Court of Appeal *(Ondernemingskamer)*. The Company believes that this may be a useful option in the period before the issuance of preference shares, without causing a dilution of the rights of other shareholders at that stage.

Foreign currency translation adjustment

The foreign currency translation adjustment comprises all foreign currency differences arising from the translation of the financial statements of foreign operations.

Accumulated other comprehensive income (loss)

Accumulated other comprehensive income (loss) consists of:

(euro in thousands)	December 31, 2018	December 31, 2017
Actuarial gains (losses)	(13,445)	(14,002)
Cash flow hedging reserve	13	884
Deferred taxes	1,442	1,538
Others	763	763
Accumulated other comprehensive income (loss)	**(11,227)**	**(10,817)**

Actuarial gains (losses)
The reserve for actuarial gains and losses arises from the actuarial calculations for the defined benefit pension plans.

Cash flow hedging reserve
The cash flow hedging reserve comprises the effective portion of the cumulative net change in the fair value of cash flow hedges related to hedged transactions that have not yet occurred.

Deferred taxes
The deferred taxes in accumulated other comprehensive income primarily relate to the deferred tax on the recognized actuarial gains and losses on the Austrian and Swiss pension plans.

Dividends
Proposed for approval at the Annual General Meeting of Shareholders to be held on April 26, 2019 (not recognized as a liability as at December 31, 2018 and December 31, 2017):

(euro in thousands)	**Year ended December 31,**	
	2018	**2017**
€ 1.67 per ordinary share (2017: € 2.32)	**122,861**	**172,961**

The Board of Management proposes to allocate the part of the net income for the year 2018 remaining after payment of the dividend to the retained earnings. The Supervisory Board has approved this proposal.

5. Borrowing facilities
At December 31, 2018, the parent company had available lines of credit aggregating € 10 million, under which no borrowings were utilized. There are no covenants for this credit line. The borrowing facility has no contractual maturity date.

6. Convertible Notes
In December 2016, the Company issued € 125 million principal amount of Convertible Notes with a maturity date of December 2, 2023 (the "2016 Convertible Notes"). The 2016 Convertible Notes carry a nominal interest rate of 2.5% per year, payable semi-annually, with the first payment made on June 2, 2018. Bondholders can convert the bonds into ordinary shares at an initial conversion price of € 21.76 (after the two for one stock split). The 2016 Convertible Notes will be repaid at maturity at a price of 100% of their principal amount plus accrued and unpaid interest.

If not converted, at any time from December 23, 2020, the Company may redeem the outstanding 2016 Convertible Notes at their principal amount, subject to giving a minimum of 30 days' and maximum of 60 days' prior notice to Bondholders, if the value of the Shares underlying the 2016 Convertible Notes equals or exceeds 130% of the then effective conversion price for at least 20 out of 30 consecutive dealing days.

The amount of the 2016 Convertible Notes classified as equity of € 11,310 is net of attributable debt issuance cost of € 215.

In November 2017, the Company issued € 175 million principal amount of Convertible Notes with a maturity date of December 6, 2024 (the "2017 Convertible Notes"). The 2017 Convertible Notes carry a nominal interest rate of 0.5% per year, payable semi-annually, with the first payment to be made on June 6, 2018. Bondholders can convert the bonds into ordinary shares at an initial conversion price of € 49.87 (after the two for one stock split). The 2017 Convertible Notes will be repaid at maturity at a price of 100% of their principal amount plus accrued and unpaid interest.

If not converted, at any time from December 27, 2021, the Company may redeem the outstanding 2017 Convertible Notes at their principal amount, subject to giving a minimum of 30 days' and maximum of 60 days' prior notice to Bondholders, if the value of the shares underlying the 2017 Convertible Notes equals or exceeds 130% of the then effective conversion price for at least 20 out of 30 consecutive dealing days.

The amount of the 2017 Convertible Notes classified as equity of € 18,479 is net of attributable debt issuance cost of € 292.

7. Commitments and contingencies

The parent company leases certain facilities and equipment under operating leases. The required minimum lease commitments were as follows:

(euro in thousands)	December 31, 2018	December 31, 2017
Within one year	42	58
After one year but not more than five years	11	36
Total	**53**	**94**

BE Semiconductor Industries N.V. is parent of the fiscal unity BE Semiconductor Industries N.V. and is therefore liable for the liabilities of the fiscal unit as a whole. The credit facilities of Besi Leshan Co. Ltd. and Besi Singapore Pte. Ltd. are secured by a parent company guarantee.

8. Financial income and expense

The components of financial income and expense were as follows:

(euro in thousands)	Year ended December 31, 2018	2017
Interest income	1,801	502
Subtotal financial income	**1,801**	**502**
Interest expense	(9,768)	(5,472)
Net foreign exchange loss	(348)	(36)
Subtotal financial expense	**(10,116)**	**(5,508)**
Financial income (expense), net	**(8,315)**	**(5,006)**

9. Selected operating expenses and additional information

Personnel expenses for all employees were as follows:

(euro in thousands)	Year ended December 31, 2018	2017
Wages and salaries	2,134	1,754
Social security expenses	141	142
Pension and retirement expenses	389	361
Share-based compensation plans	9,991	6,863
Other personnel costs	650	446
Total personnel expenses	**13,305**	**9,566**

Certain selected operating expenses are recharged to subsidiaries.

The average number of full time equivalent employees during 2018 and 2017 was 8 and 9, respectively.

10. Additional information

Cost of services provided by external auditor

Ernst & Young Accountants LLP has served as our independent registered public accounting firm for the year 2018 (2017: Deloitte Accountants B.V.). The following table sets out the aggregated fees for professional audit services and other services rendered Ernst & Young Accountants LLP and its member firms and/or affiliates in 2018 (2017: Deloitte Accountants B.V.).

(euro in thousands)	Ernst & Young Accountants LLP	E&Y Network	Year ended December 31, 2018
Audit costs	279	221	500
Other non-audit services	-	66	66
Total costs	**279**	**287**	**566**

(euro in thousands)	Deloitte Accountants B.V.	Deloitte Network	Year ended December 31, 2017
Audit costs	208	214	422
Other audit costs	-	1	1[1]
Total costs	**208**	**215**	**423**

[1] Relates to the ORSO in Hong Kong.

Total number of personnel
The Company employed 10 employees at December 31, 2018 and 2017.

Events after the balance sheet date

Subsequent events were evaluated up to February 19, 2019, which is the date the Financial Statements included in this Annual Report were approved. There are no events to report.

Duiven, February 19, 2019

Board of Management
Richard W. Blickman

Supervisory Board
Tom de Waard
Douglas J. Dunn
Mona ElNaggar
Kin Wah Loh
Carlo Bozotti
Niek Hoek

Other Information

Raymond Loewy (1893 – 1986)

Raymond Loewy was an industrial designer who achieved fame for the magnitude of his design efforts across a variety of industries. Among his designs were the first interior design standards of NASA's Skylab space station. Furthermore, he was involved with numerous railroad designs, including the Pennsylvania Railroad GG1 and S-1 locomotives.

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For addresses of Besi's offices and manufacturing facilities worldwide, please visit Besi's website: **www.besi.com**

Transfer Agent
Ordinary shares (euro)
ABN AMRO Bank N.V., Amsterdam, the Netherlands

Independent Auditors
Ernst & Young Accountants LLP, Eindhoven, the Netherlands

Legal Counsels
Freshfields Bruckhaus Deringer, Amsterdam, the Netherlands

Rutgers Posch Visée Endedijk N.V., Amsterdam, the Netherlands

Trade Register
Chamber of Commerce, Arnhem, the Netherlands
Number 09092395

Statutory Financial Statements
The statutory financial statements of BE Semiconductor Industries N.V. will be filed with the Chamber of Commerce, Arnhem, the Netherlands.

Annual General Meeting
The Annual General Meeting of Shareholders will be held on April 26, 2019, 09.30 a.m. at Besi in Duiven, the Netherlands.

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Board of Management

Richard W. Blickman (1954)
Chief Executive Officer, Chairman of the Board of Management

Management Team Members

Ruurd Boomsma (1956)
CTO

Christoph Scheiring (1970)
SVP Die Attach

René Betschart (1973)
SVP Besi Products Asia

Jeroen Kleijburg (1974)
SVP Packaging

Ruben Tibben (1978)
VP Plating

Henk Jan Jonge Poerink (1970)
SVP Global Operations

J.K. Park (1965)
SVP Sales & Customer Service APac

René Hendriks (1961)
SVP Sales Europe/North America

Cor te Hennepe (1958)
SVP Finance

Other Members of Management

K.M. Kok (1980)
VP Die Attach Mainstream Asia

Danilo Gerletti (1967)
VP Spares & Tooling

Michael Leu (1962)
VP Strategic Supply Management

Andrea Kopp-Battaglia (1978)
SVP Finance Asia and SVP Finance Die Attach

Independent Auditor's Report

To the shareholders and the Supervisory Board of BE Semiconductor Industries N.V.

Report on the audit of the financial statements 2018 included in the annual report

Our opinion

We have audited the financial statements 2018 of BE Semiconductor Industries N.V. ("the Company") based in Amsterdam. The financial statements include the Consolidated Financial Statements and the Parent Company Financial Statements.

In our opinion:
- The accompanying Consolidated Financial Statements give a true and fair view of the financial position of BE Semiconductor Industries N.V., as at December 31, 2018 and of its result and its cash flows for 2018 in accordance with International Financial Reporting Standards as adopted by the European Union (EU-IFRS) and with Part 9 of Book 2 of the Dutch Civil Code.
- The accompanying Parent Company Financial Statements give a true and fair view of the financial position of BE Semiconductor Industries N.V. as at December 31, 2018 and of its result for 2018 in accordance with Part 9 of Book 2 of the Dutch Civil Code.

The Consolidated Financial Statements comprise:
- The Consolidated Statement of Financial Position as at December 31, 2018.
- The following statements for 2018: the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Changes in Equity and the Consolidated Statement of Cash Flows.
- The notes comprising a summary of the significant accounting policies and other explanatory information.

The Parent Company Financial Statements comprise:
- The Parent Company Balance sheet as at December 31, 2018.
- The Parent Company Statement of Income and Expense for 2018.
- The notes comprising a summary of the accounting policies and other explanatory information.

Basis for our opinion

We conducted our audit in accordance with Dutch law, including the Dutch Standards on Auditing. Our responsibilities under those standards are further described in the "Our responsibilities for the audit of the financial statements" section of our report.

We are independent of BE Semiconductor Industries N.V. in accordance with the EU Regulation on specific requirements regarding statutory audit of public-interest entities, the *Wet toezicht accountantsorganisaties* ("Wta", Audit firms supervision act), the *Verordening inzake de onafhankelijkheid van accountants bij assurance-opdrachten* ("ViO", Code of Ethics for Professional Accountants, a regulation with respect to independence) and other relevant independence regulations in the Netherlands. Furthermore we have complied with the *Verordening gedrags- en beroepsregels accountants* ("VGBA", Dutch Code of Ethics).

We believe the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Materiality

Materiality	€ 7,500,000
Benchmark applied	Around 5% of profit before tax
Explanation	Based on our professional judgement we have considered an earnings-based measure as the appropriate basis to determine materiality. We consider profit before tax to be the most relevant measure given the nature of the business and the users of the financial statements.

We have also taken misstatements into account and/or possible misstatements that in our opinion are material for the users of the financial statements for qualitative reasons.

We agreed with the Supervisory Board that misstatements in excess of € 375,000, which are identified during the audit, would be reported to them, as well as smaller misstatements that in our view must be reported on qualitative grounds.

Scope of the group audit

BE Semiconductor Industries N.V. is at the head of a group of entities. The financial information of this group is included in the Consolidated Financial Statements of BE Semiconductor Industries N.V.

Our group audit mainly focused on significant group entities in Austria, China, the Netherlands, Malaysia, Singapore and Switzerland. We have:

- Performed audit procedures ourselves at the group entities located in the Netherlands, on the key audit matters revenue recognition and valuation of goodwill and certain centralized accounts.
- Used the work of other EY auditors when auditing the group entities in Europe and Asia.
- Performed review procedures or specific audit procedures at other group entities.

In total these procedures address around 98% of the group's total assets, 98% of profit before income taxes and 95% of revenue.

By performing the procedures mentioned above at group entities, together with additional procedures at group level, we have been able to obtain sufficient and appropriate audit evidence about the group's financial information to provide an opinion about the Consolidated Financial Statements.

Our key audit matters

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements. We have communicated the key audit matters to the Supervisory Board. The key audit matters are not a comprehensive reflection of all matters discussed.

These matters were addressed in the context of our audit of the financial statements as a whole and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

Revenue recognition (multiple elements arrangements and timing of recognition (cut-off))

Risk	Our audit response	Observations
Due to the nature of the Company's industry the Company enters into various customer contracts and revenue arrangement which may include a combination of multiple products and services and can include different shipping terms. With the adoptions of IFRS 15 (revenue from customer contracts) as of January 1, 2018 the risk for potential misstatement has increased due to the multiple performance obligations in those contracts and timing of the recognition in relation to this new revenue standard. There is also a risk that revenue could be recorded in the incorrect year (cut-off). As the timing of revenue recognition could be influenced by management we consequently identified a risk of management override in relation to revenue recognition. Reference is made to Note 2 and Note 24 to the Consolidated Financial Statements for the significant accounting policies on revenue recognition.	We have assessed the appropriateness of the Company's revenue recognition accounting policies and assessed compliance with EU-IFRS accounting policies (IFRS 15) for 2018. Our audit procedures included, amongst others, data analytics, testing individual sales orders and transactions to assess proper identification of the identifiable performance obligations in the contracts and correct allocation of the transaction price to these performance obligations and recognition hereof. We also selected sales transactions before and after year-end to assess whether revenue was recognized in the correct period by, amongst others, inspection of sales contracts, internal acceptance tests, client acceptance documents and shipping documents. We also evaluated the adequacy of the disclosures provided by the Company in Note 2 and Note 24.	We assessed that the Company's revenue recognition accounting policies were appropriately applied and that the impact of the new revenue recognition accounting standard (IFRS 15) is appropriately disclosed in Note 2 and Note 24. Furthermore, we assessed that the revenues were recorded in the correct year (cut-off).

Valuation of goodwill

Risk	Our audit response	Observations
The Company's goodwill of € 45.1 million is allocated to two cash generating units, Die Attach (€ 43.1 million) and Plating (€ 2.0 million) at December 31, 2018. The annual goodwill impairment test for the Die Attach cash generating unit was significant to our audit because the amount is material and the assessment process is judgemental and is based on assumptions that are affected by expected future market and economic conditions. Reference is made to Note 10 for the disclosure related to goodwill.	We assessed and challenged management's assumptions used in the impairment model as outlined in Note 10 to the Consolidated Financial Statements, amongst others, the discount rate used, relevant allocations, forecasted cash flows and growth rates. For the financial forecast after 2019, the Company used assumptions in respect of market growth estimates from semiconductor equipment industry reports. We have evaluated the historical accuracy of management's estimates that drive the assessment, such as business plans and expected growth rates. In our audit we were assisted by our valuation experts. We also evaluated the adequacy of the disclosures provided by the Company in Note 10 in relation to its impairment assessment.	We assessed that the Company's goodwill impairment analysis was performed in accordance with IAS 36 and adequate disclosed in Note 10 in the Consolidated Financial Statements.

Report on other information included in the annual report

In addition to the financial statements and our auditor's report thereon, the annual report contains other information that consists of:
- Report of the Board of Management.
- Report of the Supervisory Board.
- Other information pursuant to Part 9 of Book 2 of the Dutch Civil Code.

Based on the following procedures performed, we conclude that the other information:
- Is consistent with the financial statements and does not contain material misstatements.
- Contains the information as required by Part 9 of Book 2 of the Dutch Civil Code.

We have read the other information. Based on our knowledge and understanding obtained through our audit of the financial statements or otherwise, we have considered whether the other information contains material misstatements. By performing these procedures, we comply with the requirements of Part 9 of Book 2 of the Dutch Civil Code and the Dutch Standard 720. The scope of the procedures performed is substantially less than the scope of those performed in our audit of the financial statements.

Management is responsible for the preparation of the other information, including the Report of the Board of Management, in accordance with Part 9 of Book 2 of the Dutch Civil Code and other information as required by Part 9 of Book 2 of the Dutch Civil Code.

Report on other legal and regulatory requirements

Engagement

We were engaged as auditor of BE Semiconductor Industries N.V. as of the audit for the year 2018 and have operated as statutory auditor since the appointment in the AGM of April 26, 2018.

No prohibited non-audit services

We have not provided prohibited non-audit services as referred to in Article 5(1) of the EU Regulation on specific requirements regarding statutory audit of public-interest entities.

Other non-prohibited services provided

Our services are only related to the audit of the financial statements.

Description of responsibilities for the financial statements

Responsibilities of management and the Supervisory Board for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with EU-IFRS and Part 9 of Book 2 of the Dutch Civil Code. Furthermore, management is responsible for such internal control as management determines is necessary to enable the preparation of the financial statements that are free from material misstatement, whether due to fraud or error.

As part of the preparation of the financial statements, management is responsible for assessing the Company's ability to continue as a going concern. Based on the financial reporting frameworks mentioned, management should prepare the financial statements using the going concern basis of accounting unless management either intends to liquidate the Company or to cease operations, or has no realistic alternative but to do so. Management should disclose events and circumstances that may cast significant doubt on the Company's ability to continue as a going concern in the financial statements.

The Supervisory Board is responsible for overseeing the Company's financial reporting process.

Our responsibilities for the audit of the financial statements

Our objective is to plan and perform the audit engagement in a manner that allows us to obtain sufficient and appropriate audit evidence for our opinion.

Our audit has been performed with a high, but not absolute, level of assurance, which means we may not detect all material errors and fraud during our audit.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements. The materiality affects the nature, timing and extent of our audit procedures and the evaluation of the effect of identified misstatements on our opinion.

We have exercised professional judgement and have maintained professional skepticism throughout the audit, in accordance with Dutch Standards on Auditing, ethical requirements and independence requirements. Our audit included among others:

- Identifying and assessing the risks of material misstatement of the financial statements, whether due to fraud or error, designing and performing audit procedures responsive to those risks, and obtaining audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtaining an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control.
- Evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Concluding on the appropriateness of management's use of the going concern basis of accounting, and based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause a company to cease to continue as a going concern.
- Evaluating the overall presentation, structure and content of the financial statements, including the disclosures.
- Evaluating whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

Because we are ultimately responsible for the opinion, we are also responsible for directing, supervising and performing the group audit. In this respect we have determined the nature and extent of the audit procedures to be carried out for group entities. Decisive were the size and/or the risk profile of the group entities or operations. On this basis, we selected group entities for which an audit or review had to be carried out on the complete set of financial information or specific items.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant findings in internal control that we identify during our audit. In this respect we also submit an additional report to the Audit Committee in accordance with Article 11 of the EU Regulation on specific requirements regarding statutory audit of public-interest entities. The information included in this additional report is consistent with our audit opinion in this auditor's report.

We provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine the key audit matters: those matters that were of most significance in the audit of the financial statements. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, not communicating the matter is in the public interest.

Eindhoven, February 19, 2019

Ernst & Young Accountants LLP

M. Moolenaar

Preference shares

At December 31, 2018, the Company's authorized capital consisted of 160,000,000 ordinary shares, nominal value € 0.01 per share, and 160,000,000 preference shares, nominal value € 0.01 per share.

No preference shares were outstanding at December 31, 2018.

In April 2000, the foundation "Stichting Continuïteit BE Semiconductor Industries" (the "Foundation") was established. The Foundation is an independent legal entity and is not owned or controlled by any other legal person. The purpose of the Foundation is to safeguard the interests of the Company, the enterprise connected therewith and all the parties having an interest therein and to exclude as much as possible influences which could threaten, among other things, the continuity, independence and identity of the Company. The aim of the preference shares is, among other things, to provide a protective measure against unfriendly take-over bids and other possible unsolicited influences which could threaten the Company's continuity, independence and identity, including, but not limited to, a proposed resolution to dismiss the Supervisory Board or the Board of Management. The issue of preference shares would enable the Company to consider its position in the then-existing circumstances.

By agreement of May 19, 2008 between the Company and the Foundation, which replaced a similar agreement dated April 19, 2002, the Foundation has been granted a call option pursuant to which it may purchase a number of preference shares up to a maximum of the number of ordinary shares issued and outstanding at the time of exercise of this option, minus one.

The Company has also granted to the Foundation the right to file an application for an inquiry into the policy and conduct of the business of the Company with the Enterprise Chamber of the Amsterdam Court of Appeal *(Ondernemingskamer)*. The Company believes that this may be a useful option in the period before the issuance of preference shares, without causing a dilution of the rights of other shareholders at that stage.

The members of the board of the Foundation are W.L.J. Bröcker (Chairman), J.N. de Blécourt and T. de Waard. Except for Mr De Waard, none of the members of the board of the Foundation are connected to the Company. The Foundation therefore qualifies as an independent legal entity within the meaning of section 5:71 paragraph 1 sub c of the Dutch Financial Supervision Act *(Wet op het financieel toezicht)*.

Appropriation of the result

The Articles of Association provide that the Company can only distribute profits from its free distributable reserves. The Board of Management, with the approval of the Supervisory Board, will propose to the Annual General Meeting of Shareholders to determine the total dividend over 2018 at € 1.67 per ordinary share, amounting to a total of € 122.9 million. The Board of Management proposes to allocate the part of the net income for the year 2018 remaining after payment of the dividend to the retained earnings. The Supervisory Board has approved this proposal.

The General Meeting of Shareholders approved the 2017 statutory financial statements on April 26, 2018.

Notes

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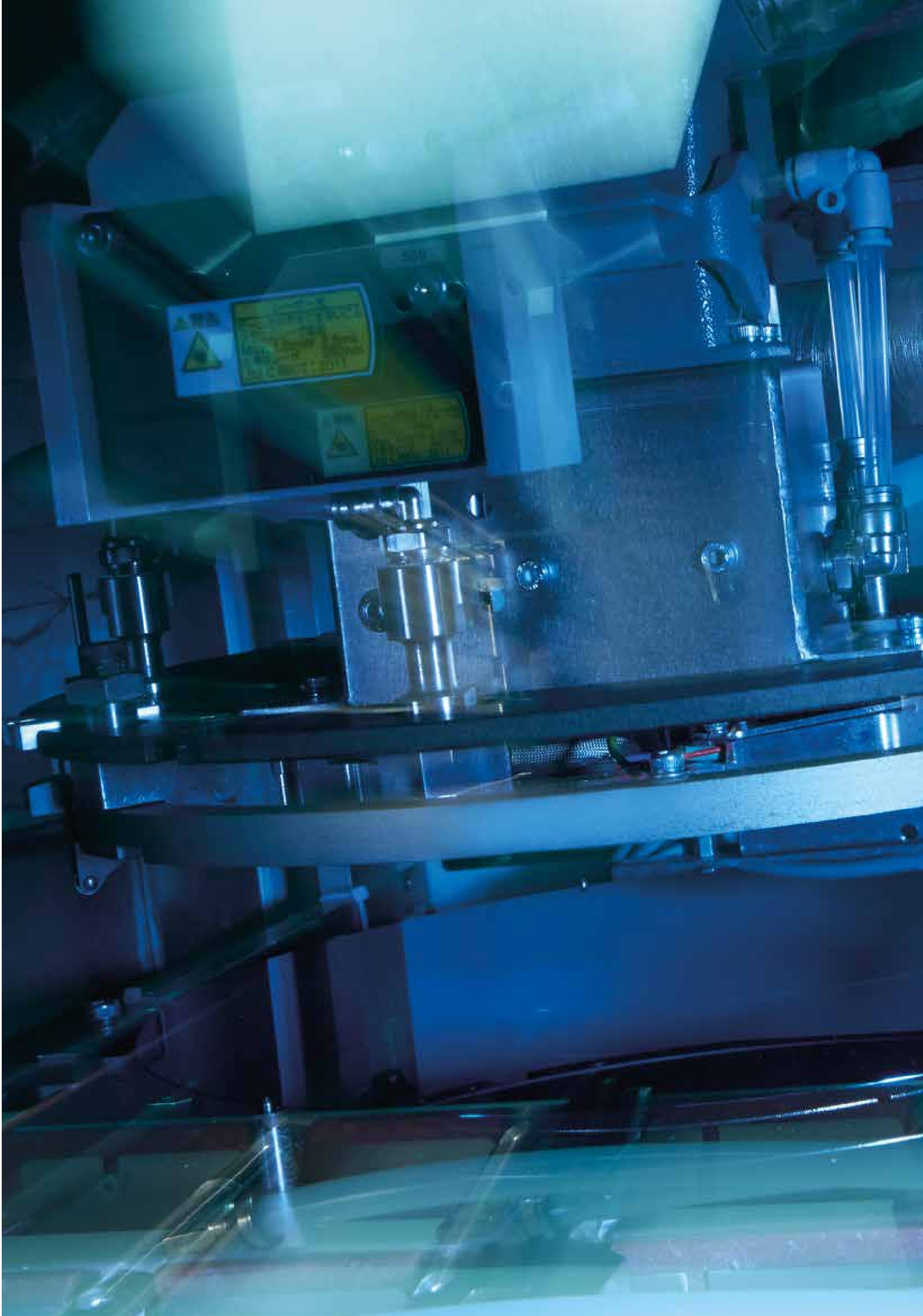

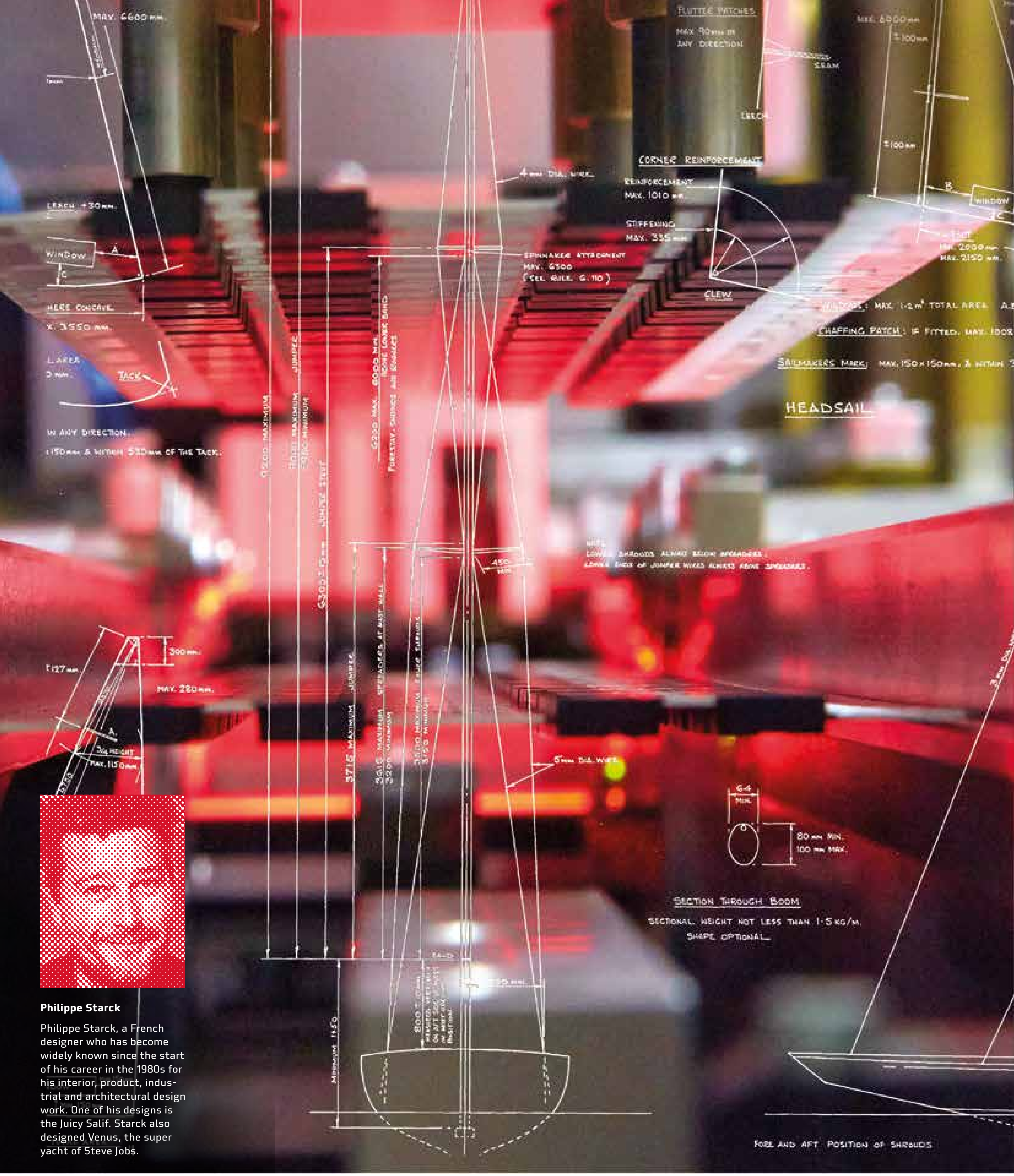

Philippe Starck

Philippe Starck, a French designer who has become widely known since the start of his career in the 1980s for his interior, product, industrial and architectural design work. One of his designs is the Juicy Salif. Starck also designed Venus, the super yacht of Steve Jobs.

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